This file was downloaded and provided FREE OF CHARGE from the ManualDirectory community.

You can find many free to download Service Manuals & Schematics at

http://www.manualdirectory.co.uk

SERVICE MANUAL

AA-2H CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-32XBR200	RM-Y144	US	SCC-S18A-A
KV-32XBR200	RM-Y144	CND	SCC-S19A-A
KV-36XBR200	RM-Y144	US	SCC-S18D-A
KV-36XBR200	RM-Y144	CND	SCC-S19D-A

KV-36XBR200

RM-Y144

MICROFILM

TRINITRON® COLOR TV

SONY®

SPECIFICATIONS

	KV-32XBR200	KV-36XBR200
Power requirements	120V, 60Hz	
Number of inputs/outputs:		
Video [1]	3	
S Video [2]	2	
Audio [3]	4	
Audio Out [4]	1	
Monitor Out	1	
TV Out [1] [3]	1	
S-link	3	
Y, P_B, P_R [5]	1	
Speaker output (W)	15W x 2	
Power Consumption (W):		
In use (max.)	240W	
In standby	2W	
Dimensions (W/H/D):		
(mm)	889.4 x 685.6 x 600.7 mm	1010 x 761.2 x 630.9 mm
(in.)	$35^{7/16}$ x 27 x $23^{21/32}$ in	$35^{13/16}$ x 30 x $24^{15/16}$ in
Mass:		
(kg.)	79 kg	107 kg
(lbs.)	175 lbs	236 lbs

[1] 1 Vp-p 75 ohms unbalanced, sync negative
[2] Y: 1 Vp-p 75 ohms unbalanced, sync negative
C: 0.286 Vp-p (Burst signal), 75 ohms
[3] 500 mVrms (100% modulation), Impedance: 47 kilohms
[4] More than 408 mVrms at the maximum volume setting (variable)
More than 408 mVrms (fix); Impedance (Output): 2 kilohms
[5] Y: 1.0 Vp-p, 75 ohms, sync negative; P_B: 0.7 Vp-p, 75 ohms; P_R: Vp-p, 75 ohms

Television system
American TV standard, NTSC

Channel coverage
VHF:2-13 / UHF:14-69 / CATV:1-125

Visible screen size
32-inch picture measured diagonally (KV-32XBR200)
36-inch picture measured diagonally (KV-36XBR200)

Actual screen size
34-inch picture measured diagonally (KV-32XBR200)
38-inch picture measured diagonally (KV-36XBR200)

Antenna
75 ohm external antenna terminal for VHF/UHF

Picture tube
FD Trinitron® tube

Supplied accessories
Remote control RM-Y144
Battery size AA (R6) 2

Optional accessory
Connecting Cables
RK-74A, RK-G69HG,
VMC-10HG, VMC-720M,
VMC-810S/820S, YC-15V/30V,
TV Stand SU-32FD1, SU-36FD1
U/V mixer EAC-66

(●) ® SRS (SOUND RETRIEVAL SYSTEM)

The (●) SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

The word 'SRS' and the SRS symbol (●) are registered trademarks of SRS Labs, Inc.

BBE and BBE symbol are trademarks of BBE Sound, Inc. and are licensed by BBE Sound, Inc. under U.S. Patent No. 4,638,258 and 4,482,866.

Design and specifications are subject to change without notice.

TABLE OF CONTENTS

Section	Title	Page
1.	**GENERAL**	
	Remote Control	5
	Connecting and Installing the TV	5
	Cable Box Connections	5
	VCR Connections	5
	DBS Connections	6
	DVD Player Connections	6
	Additional Connections	6
	Using your New TV	7
	Watching the TV	8
	Watching two programs at one time - PIP	8
	Using Your Menus	9
	Learning menu selection	9
	Using the VIDEO menu	9
	Using the AUDIO menu	10
	Using the TIMER menu	10
	Using the SET UP menu	10
	Operating Video Equipment	12
	VCR manufacturer code numbers	12
	MDP manufacturer code numbers	12
	Operating a cable box DBS or DBS receiver	12
	Troubleshooting	12
2.	**DISASSEMBLY**	
2-1.	Rear Cover and Speaker Removal	13
2-2.	Chassis Assembly Removal	13
2-3.	Service Position	13
2-4.	Control Assy Removal	13
2-5.	Extension Cable Removal	14
2-6.	Picture Tube Removal	15
3.	**SET-UP ADJUSTMENTS**	
3-1.	Beam Landing	16
3-2.	Convergence	17
3-3.	Focus	18
3-4.	Screen (G2)	18
3-5.	White Balance Adjustment	18
4.	**SAFETY RELATED ADJUSTMENTS**	**19**
5.	**CIRCUIT ADJUSTMENTS**	**20**
6.	**DIAGRAMS**	
6-1.	Block Diagram	31
6-2.	Circuit Boards Location	34
6-3.	Printed Wiring Boards and Schematic Diagrams	39
	• A Board	39
	• AX Board	45
	• BX Board	47
	• HF Board	50
	• HX Board	50
	• C Board	51
	• G Board	53
	• K Board	55
	• WA Board	57
	• PX Board	59
	• UX Board	63
6-4.	Semiconductors	68
7.	**EXPLODED VIEWS**	
7-1.	Chassis	69
7-2.	Picture Tube	70
8.	**ELECTRICAL PARTS LIST**	**71**

CAUTION!

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

ATTENTION!!

AFIN D'EVITER TOUT RESQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D'UNEIMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONTIONNEMENT SUSPECTE.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, “metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampere). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-l00 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

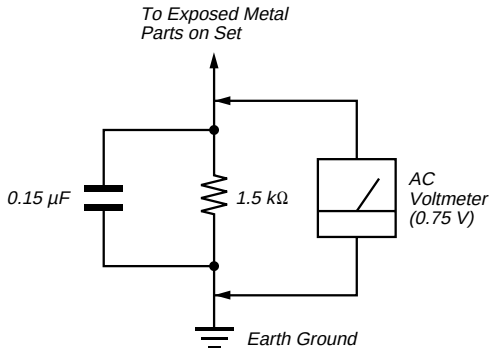


Fig. A. Using an AC voltmeter to check AC leakage.

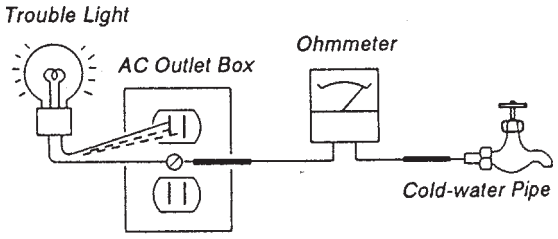


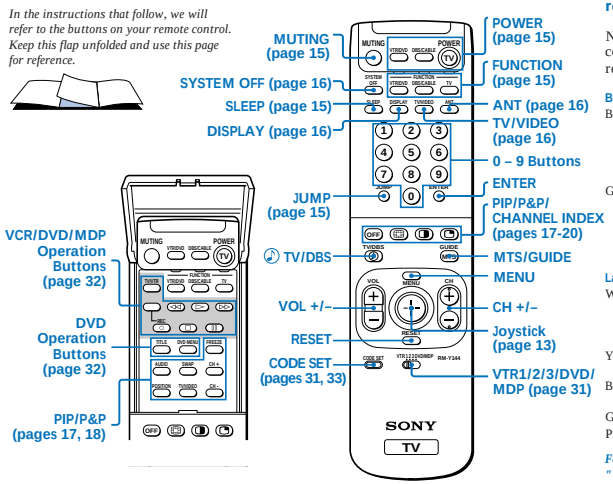
Fig B. Checking for earth ground.

SECTION 1 GENERAL

The instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers showm reflect those of the Operating Instruction Manual.

Remote Control

In the instructions that follow, we will refer to the buttons on your remote control. Keep this flap unfolded and use this page for reference.



Getting to know the buttons on the remote control

Names of the buttons on the remote control are presented in different colors to represent the available functions.

Button color

Black ..... Press to select the component you want to control; e.g. VTR (VCR) / MDP / DVD Player, DBS (Direct Broadcast Satellite) / CABLE, or TV

Green ..... Buttons relevant to power operations, like turning the TV, DBS (Direct Broadcast Satellite) / CABLE, or VTR (VCR) / MDP / DVD Player on or off

Label color

White ..... TV / VTR (VCR) / MDP / DVD Player / DBS (Direct Broadcast Satellite) / CABLE operation buttons

Yellow ..... PIP, P&P, and CHANNEL INDEX operation buttons

Blue ..... DBS (Direct Broadcast Satellite) operation buttons

Green ..... S-Link operation buttons

Pink ..... DVD Player operation buttons

For a detailed explanation of most buttons, see "Watching the TV" on page 15.

Connecting and Installing the TV (continued)

Cable Box Connections

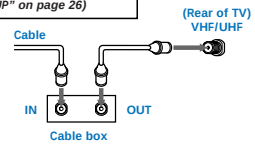
Some pay cable TV systems use scrambled or encoded signals that require a cable box to view all channels.

Cable box

1 Connect the coaxial connector from your cable to the IN on your cable box.

2 Using a coaxial cable, connect OUT on your cable box to VHF / UHF on your TV.

If you will be controlling all channel selection through your cable box, you should consider using the CHANNEL FIX feature. (see "CHANNEL SET UP" on page 26)



Cable box and cable

For this set up, you can switch between scrambled channels (through your cable box), and normal (CATV) channels by pressing ANT on your remote control.

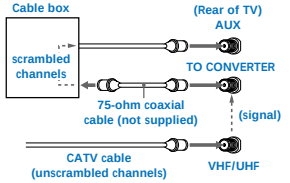
Notes

- Your Sony remote control can be programmed to operate your cable box. (see "Operating a Cable Box or DBS Receiver" on page 33)
- When using PIP, you cannot view the AUX input in the window picture.

Tip

Pressing ANT switches between these inputs.

If you are connecting a cable box through the AUX input and would like to switch between the AUX and normal (CATV) input you should consider using the CHANNEL FIX feature. (see "CHANNEL SET UP" on page 26)



VCR Connections

Connecting an antenna/cable TV system with a VCR

1 Attach the coaxial connector from your cable or antenna to IN on your VCR.

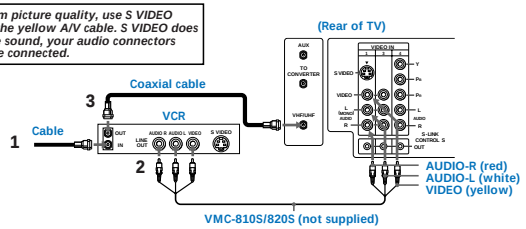
2 Using A / V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV*.

3 Using a coaxial connector, connect OUT on your VCR to VHF / UHF on your TV.

* If you are connecting a monaural VCR, connect only the single white audio output to the left input on your TV.

Disconnect all power sources before making any connections.

For optimum picture quality, use S VIDEO instead of the yellow A/V cable. S VIDEO does not provide sound, your audio connectors must still be connected.

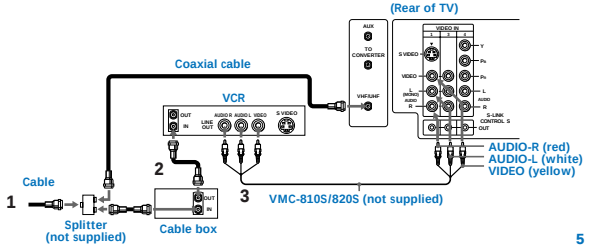


Connecting a VCR and TV with a cable box

1 Connect the single (input) jack of the splitter to your incoming cable connection, and connect the other two (output) jacks (using coaxial cable) to IN on your cable box and VHF / UHF on your TV.

2 Using a coaxial connector, connect OUT on your cable box to IN on your VCR.

3 Using A / V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.



Connecting and Installing the TV (continued)

Disconnect all power sources before making any connections.

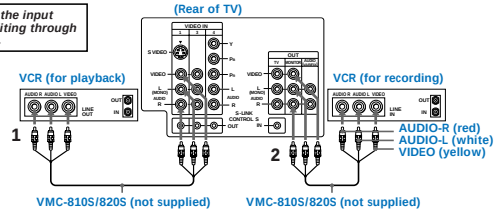
Connecting two VCRs

MONITOR OUT gives you the ability to use a second VCR to record a program being played by the primary VCR or to perform tape editing and dubbing.

1 Connect the VCR intended for playback using the connection instructions on page 4 of this manual.

2 Using A / V connectors, connect AUDIO and VIDEO IN on your VCR intended for recording to MONITOR AUDIO and VIDEO OUT on your TV.

Do not change the input signal while editing through MONITOR OUT.



KV-32XBR200/KV-36XBR200

DBS Connections

Connecting a DBS (Direct Broadcast Satellite) receiver

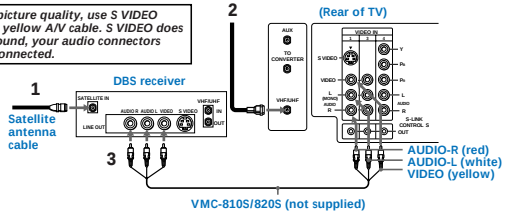
1 Connect the cable from your satellite antenna to your DBS receiver.
2 Attach the coaxial connector from your cable or antenna to VHF/UHF on your TV.
3 Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS receiver to AUDIO and VIDEO IN on your TV.

Connecting a DBS (Direct Broadcast Satellite) receiver and a VCR

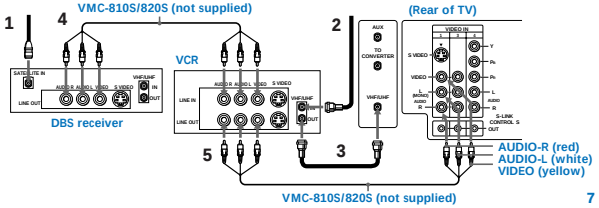
1 Connect the cable from your satellite antenna to your DBS receiver.
2 Attach the coaxial connector from your cable or antenna to VHF/UHF IN on your VCR.
3 Using a coaxial connector, connect VHF/UHF OUT on your VCR to VHF/UHF on your TV.
4 Using A/V connectors, connect AUDIO and VIDEO OUT on your DBS receiver to AUDIO and VIDEO IN on your VCR.
5 Using A/V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.

Disconnect all power sources before making any connections.

For optimum picture quality, use S VIDEO instead of the yellow A/V cable. S VIDEO does not provide sound, your audio connectors must still be connected.



Pressing TV/VIDEO on the remote control will allow you to view from the DBS or VCR.



Additional Connections

Connecting an audio system

For an enhanced sound, connect your audio system to your TV.

1 Using AUDIO connectors, connect AUDIO OUT on your TV to one of the unused Line inputs (e.g. Tape-2, AUX1, etc.) on your stereo.
2 Set your stereo to the chosen Line input and use the AUDIO menu to set your audio output. (see “SPEAKER” and "AUDIO OUT" on page 24)

Connecting an A/V receiver

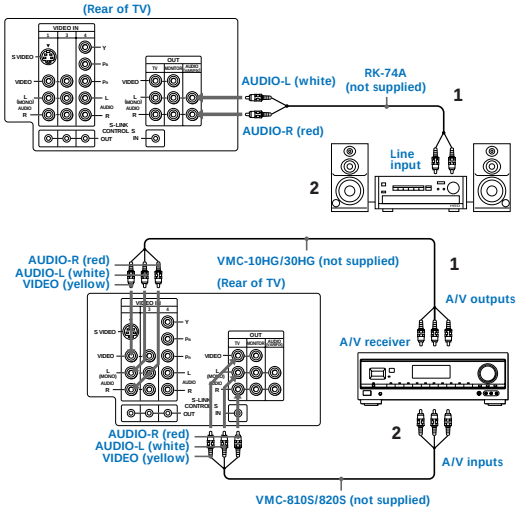
For easier control of all audio and video equipment, connect your A/V receiver.

1 Using A/V connectors, connect VIDEO 1 IN on your TV to Monitor AUDIO and VIDEO OUT on your A/V receiver.
2 Using A/V connectors, connect TV OUT on your TV to TV AUDIO and VIDEO IN on your A/V receiver.

Tip

You may want to use CHANNEL FIX to fix your TV's input to the A/V receiver (VIDEO 1). (see “CHANNEL SET UP” on page 26)

Disconnect all power sources before making any connections.



Connecting and Installing the TV (continued)

DVD Connections

Connecting a DVD Player

Using A/V connectors, connect VIDEO IN on your TV to LINE OUT on your DVD Player.

Connecting a DVD Player with component video output connectors

This connection option offers the highest quality DVD picture.

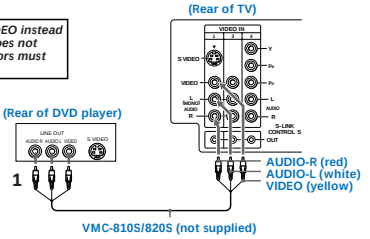
1 Using AUDIO connectors, connect AUDIO R and L of the LINE OUT on your DVD Player to AUDIO R and L on the VIDEO IN 4 panel at the rear of your TV.
2 Using three VIDEO connectors, connect Y, P_B, and P_R on the COMPONENT VIDEO OUT on your DVD Player to Y, P_B, and P_R on the VIDEO IN 4 panel at the rear of your TV.

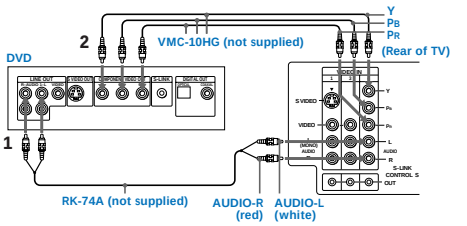
Note

• Some DVD Player terminals may be labeled Y, C_B, and C_R, or Y, B-Y, and R-Y. If so, connect them by matching the colors.

Disconnect all power sources before making any connections.

For better picture quality, use S VIDEO instead of the yellow A/V cable. S VIDEO does not provide sound, your audio connectors must still be connected.





Connecting and Installing the TV (continued)

Connecting a camcorder

This connection is convenient for viewing a picture directly from your camcorder.

Using A/V connectors, connect AUDIO and VIDEO OUT on your camcorder to AUDIO and VIDEO IN on your TV.

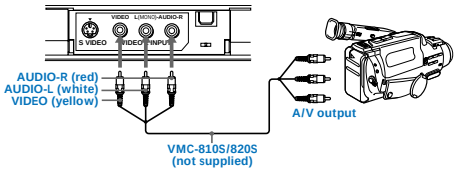
Connection can also be made directly to your A/V input located on the rear of your TV.

Note

• If you are connecting a monaural camcorder, connect only the single white audio output to the left input on your TV.

Disconnect all power sources before making any connections.

If you have an S VIDEO equipped camcorder, you can use an S Video cable for optimum picture quality.



Using Special Sony Features

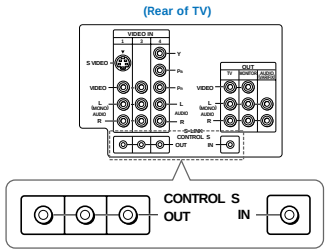
Using the CONTROL S feature

CONTROL S allows you to control your TV and other Sony equipment with one remote control.

To control your other Sony equipment with your TV's remote control, connect the CONTROL S IN jack of the equipment to the CONTROL S OUT jack on the TV with the CONTROL S cable.

To control other Sony equipment with your TV's remote control, see "S-Link Connections" on page 12.

Disconnect all power sources before making any connections.



Connecting and Installing the TV (continued)

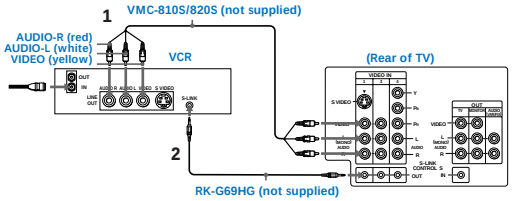
Connecting S-Link to your VCR

S-Link will automatically power on the TV and switch to the correct video input when a tape is inserted in the VCR or when you begin to play a tape.

1 Using A / V connectors, connect AUDIO and VIDEO OUT on your VCR to AUDIO and VIDEO IN on your TV.

2 Using an S-LINK connector (mono mini plug), connect S-LINK / CONTROL S-IN on your VCR to S-LINK on your TV.

Disconnect all power sources before making any connections.



Connecting S-Link to your DBS

S-Link will automatically power on the TV and switch to the correct video input when you power on the DBS.

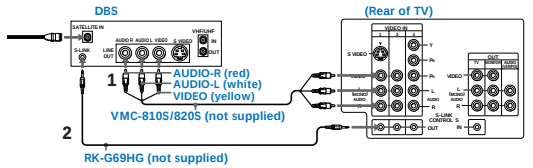
1 Using A / V connectors, connect AUDIO and VIDEO OUT on your DBS to AUDIO and VIDEO IN on your TV.

2 Using an S-LINK connector (mono mini plug), connect S-LINK / CONTROL S-IN on your DBS to S-LINK on your TV.

Note

- If you have labeled one of your video inputs as SKIP (see "VIDEO LABEL" on page 27) and then connect video equipment to this input using S-Link, the S-Link feature will override the SKIP function.

The S-Link connector must be in the same VIDEO-IN jacks as the A/V cables on your TV.



Basic Set Up

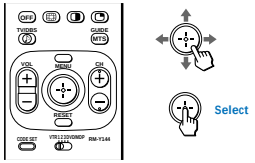
Inserting Batteries

Insert two size AA (R6) batteries (supplied) by matching the + and – on the batteries to the diagram inside the battery compartment.

Notes

- Remove the batteries to avoid damage from possible battery leakage whenever you anticipate that the remote control will not be used for an extended period.
- Handle the remote control with care. Avoid dropping it, getting it wet, or placing it in direct sunlight, near a heater, or where the humidity is high.
- Your remote control can be programmed to operate most video equipment. (see "Operating Video Equipment" on page 31)

Using the Remote Control Joystick



The supplied remote control has a joystick which allows for movement of the on-screen selector. Pressing up, down, left, or right on the joystick will cause the selector to *move* in the corresponding direction. Pressing down on the center of the joystick (⊕) will *select* the item.

Adjustment Bars

When menu items present an adjustment bar (▬ or ▬), press up, down, left, or right on the joystick to adjust the setting.

On Screen Help/Instructions

Several menu windows will provide prompts and instructions to assist you in navigating through the different functions.

When the instructions are presented, use them to supplement the instructions in this manual.

Using your New TV

Setting Up the TV Automatically

The Easy Setup Guide feature allows you to set the on-screen language and set all receivable channels in one step.

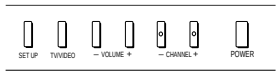
The AUTO PROGRAM function of the Easy Setup Guide feature does not apply for installations that use a cable box for all channel selection.

You can also set up the TV manually. (see "Using the SET UP menu" on page 26)

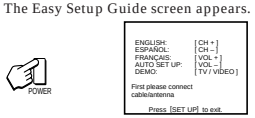
Tips

- *Perform this function during the day, with the antenna and/or cable properly connected, to ensure that all available channels will be broadcasting and receivable.*
- *After using Easy Setup Guide you will still have the option of adjusting any of the system settings, like erasing channels, through the SET UP menu. (see "CHANNEL SET UP" on page 26)*

Using the buttons on the top of the TV:



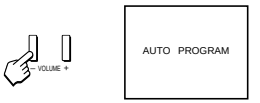
1 Press POWER to turn on the TV.
The Easy Setup Guide screen appears.



2 Press CHANNEL + to select ENGLISH, CHANNEL – to select ESPAÑOL or VOLUME + to select FRANÇAIS.
The screen will change to reflect your choice.

For a DEMO of functions and menus, press TV / VIDEO.

3 Press VOLUME – to continue.



AUTO PROGRAM appears and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, the lowest numbered channel is displayed. If the TV receives cable TV channels, CABLE is set to ON automatically.

To perform AUTO SET UP again

Press the SET UP button on the TV and follow steps 2–3.

Notes

- Before you perform Easy Setup Guide again, make sure that the input from ANT (not AUX) is selected by pressing ANT until "AUX" does not appear next to the channel number.
- When you perform AUTO PROGRAM, your CHANNEL FIX, TIMER, and CHANNEL BLOCK settings will be erased.
- To reset your TV to factory settings, turn the TV on. Then, while pressing the RESET button on your remote control, press the POWER key on your TV. The TV will turn itself off, then back on.

KV-32XBR200/KV-36XBR200

Watching the TV

Many TV features can be accessed directly through the remote control. The following chart will explain the function of some buttons found on your remote control.

REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART

Using the White Labeled Buttons for TV Operations	
VTR/DVD DBS/CABLE POWER TV	Press when you want to turn equipment on and off.
FUNCTION VTR/DVD DBS/CABLE TV	Press when you want to control connected components with your remote control. (see pages 31-33 for instructions on programming your remote control)
0 - 9 and ENTER	Use for direct channel selection. Press 0-9 to select a channel (for example, to select channel 10, press 1 and 0), the channel will change after 2 seconds, or you can press ENTER for immediate selection.
CH	Press to scan through the channels. *Keeping the CH + or – pressed allows you to rapidly scan to the desired channel.*
VOL	Press to adjust the volume.
JUMP	Press to alternate or *jump* back and forth between two channels. The TV will jump between the current channel and the last channel selected using the 0-9 buttons.
MUTING	Press to mute the sound ("MUTING" will appear on the screen). Press again or press VOL + to restore sound.
FREEZE *yellow labeled button*	Press to freeze the picture. Press again or press OFF to cancel.
SLEEP	Press repeatedly until the TV displays the approximate time in minutes (30, 60, or 90) that you want the TV to remain on before shutting off automatically. Cancel by pressing until SLEEP OFF appears.

Using the White Labeled Buttons for TV Operations	
DISPLAY	Press repeatedly to step through available displays: **Status** Channel number, current time, channel caption (if set), and MTS mode (if SAP is selected) are displayed. SAP indication disappears after three seconds. **Caption Vision/XDS** Closed captioning or XDS will be displayed on the screen if the broadcaster offers these services. (see right) To cancel the display, press DISPLAY repeatedly until DISPLAY OFF appears.
TV/VIDEO	Press repeatedly to step through available video inputs: **TV, VIDEO 1, VIDEO 2, VIDEO 3 and VIDEO 4** If you select SKIP as a VIDEO LABEL in the SET UP menu, your TV will skip the video input you selected. (see "VIDEO LABEL" on page 27)
ANT	Press to change between the VHF/UHF input and the AUX input. (For detailed connection information, see "Cable box and cable" on page 4 or "Cable and antenna" on page 3) Press to change from VIDEO input to TV input.
GUIDE MTS *(AUX input)*	Press to cycle through the Multi-channel TV Sound (MTS) options. **STEREO**, **SAP**, **MONO** (see "MTS" on page 24) Guide is a feature of DBS, refer to your DBS operating instructions.
SYSTEM OFF	Press to turn off the TV and all other equipment connected with S-Link. (see page 12)
TV/VTR	Press when you are finished using a VCR and you want to switch to the TV input. Your VCR power will remain on.
TV/DBS	Press to select an audio option. (see "EFFECT" on page 24) Options: **TRUSURROUND Dolby Virtual** **SIMULATED** **EFFECT OFF** TV/DBS is a feature of DBS, refer to your DBS operating instructions.

CAPTION VISION
(Closed Caption)

CAPTION VISION can be used for programs that are broadcast with closed caption.
To access CAPTION VISION:

1. Press MENU.
2. Use the ⊕ to scroll to CC.
3. Select CC with the ⊕ button.
4. Choose a CAPTION VISION option.
5. Access CAPTION VISION/TEXT/XDS through your DISPLAY button. (see left)

CC1, 2, 3 or 4
Shows you a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs)

TEXT1, 2, 3 or 4
Shows you network/station information presented using either half or the whole screen.

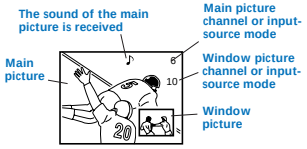
XDS (Extended Data Service)
Shows a network name, program name, program length, and time of the show if the broadcaster offers this service.

Note

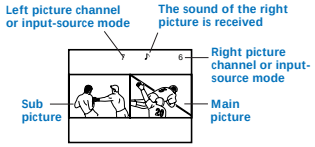
- Poor reception of TV programs can cause errors in CAPTION VISION and XDS. Captions may appear with a white box or other errors instead of intended text.

Watching Two Programs at One Time — PIP/P&P (Twin View™)

The Picture-in-Picture (PIP) feature allows you to view two channels simultaneously, one in the full size "main" picture and one in a smaller "window" picture.


The sound of the main picture is received
Main picture channel or input-source mode
Main picture
Window picture channel or input-source mode
Window picture

The Picture-and-Picture (P&P) feature allows you to view two channels simultaneously, both in a reduced size screen. The main picture will appear on the right.


Left picture channel or input-source mode
The sound of the right picture is received
Right picture channel or input-source mode
Sub picture
Main picture

REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART

Using the Yellow Labeled Buttons for PIP Operations Some control buttons for PIP and P&P are located under the cover on the top of the remote control.	
	Press to display a window picture (PIP). Each time you press, the picture size will change (1/4 → 1/9 → 1/16). Press OFF to remove the window picture.
	Press to display right (main) and left pictures (P&P). Press OFF to cancel.
TV/VIDEO *yellow labeled button*	Press repeatedly to step through available video inputs: **TV, VIDEO 1, VIDEO 2, VIDEO 3 and VIDEO 4** PIP will display the video source in the window picture. P&P will display the video source in the left picture. *If you label one of your VIDEO inputs as SKIP, this video input will be skipped. (see "VIDEO LABEL" on page 27)*
AUDIO	Press to alternate sound between the main picture and the window picture for PIP and the right and left picture for P&P. A ♪ will appear for a few seconds to indicate which picture is receiving sound.

Using the Yellow Labeled Buttons for PIP Operations	
CH + CH –	Press to change the TV channel in the secondary picture. For PIP, the channel in the window picture will change. For P&P, the channel in the left picture will change.
POSITION	Press to move the location of the window picture around the main picture. *This function works only for PIP.*
FREEZE	Great for copying down phone numbers, addresses, recipes, etc. For PIP: Press to freeze the main picture and remove the window picture. Press ⏱ or FREEZE to resume PIP viewing. Press OFF to cancel and resume normal TV viewing. For P&P: Press to freeze both pictures. Press again to resume P&P viewing or press OFF to cancel and resume normal TV viewing.
SWAP	Press to switch the audio and video of the main picture and the window picture for PIP, or between the left and right pictures for P&P.
	Press to access CHANNEL INDEX for direct channel selection. (see "Using CHANNEL INDEX" on page 19)
OFF	Press to cancel PIP or P&P functions and return to normal viewing.

Notes

- The channel being received through the AUX jack cannot be displayed as a window picture.
- If one of the pictures received through PIP / P&P is snowy, the entire screen may appear snowy. In this case, skip the snowy channel. (see "CHANNEL SKIP / ADD" on page 26)

Using the Yellow Labeled Buttons for CHANNEL INDEX Operations Some control buttons are located under the cover on the top of the remote control.	
	Press to access CHANNEL INDEX. Press again to access the next twelve receivable channels.
CH + CH –	Press to cycle through the receivable channels one at a time.
OFF	Press to cancel the current operation and return to normal TV viewing.
FREEZE	Press to freeze the center picture. Press again to cancel the frozen picture and resume normal center picture viewing.
Using the White Labeled Buttons for Center Picture Operations	
TV/VIDEO	Press to cycle the center picture through the video inputs. *The surrounding channels will not change.*
ANT	Press to replace the center picture with a channel received through the AUX input. Press again to return to CATV input.
CH + – or 0-9 and ENTER or JUMP	Press to select the channel for the center picture. (see "Watching the TV" on pages 15-16)

REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART

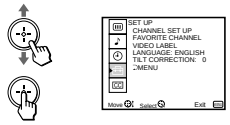
Learning Menu Selection

Use the MENU button to access a menu and use the joystick to alter settings. Use the following example, in which we activate the CABLE, to learn how to modify settings.

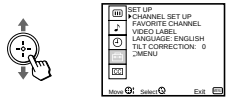
1 Press the MENU button.

The main menu appears.

2 Press up or down on the joystick to highlight the desired menu and press ⊕ to activate it.

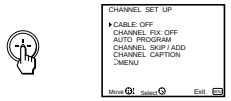


3 Press up or down on the joystick until the cursor points to the desired option.

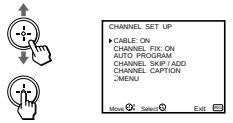


4 Press ⊕.

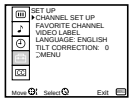
Options for your selection will be displayed.



5 Press up or down on the joystick to make your selection and press ⊕ to activate it.



When you are done with changes to the selected menu, choose ↩MENU to return to the main menu.



Notes

- Pressing MENU on the remote control will allow you to exit from the menus at any time.
- If any menu items are "grayed out" press the ANT button on your remote control until a channel number appears.

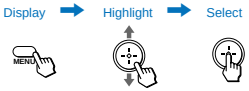
Quick start to the menus

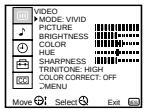
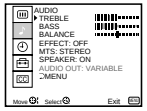
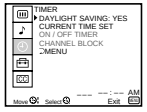
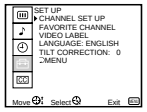
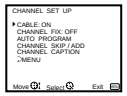
The following is a guide to your menus.

For detailed information on using the remote control to modify menu settings, refer to "Learning menu selection" on page 21.

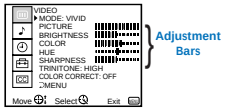
To select a menu:

Display → Highlight → Select



	The VIDEO menu allows you to make adjustments to your picture settings. It also allows you to customize the picture MODE based on the type of program you are watching.
	The AUDIO menu offers enhanced audio options such as listening to second audio programming (SAP), or customizing the EFFECT of the sound on your TV.
	The TIMER menu sets the clock on your TV and allows you to program your TV for scheduled viewing using the ON/OFF TIMER.
	The SET UP menu provides several options for setting up your channels, labeling your TV/VIDEO inputs, and selecting the LANGUAGE of your menus. The CHANNEL SET UP menu is a sub-menu which provides further options for setting up your TV. 

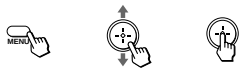
Using the VIDEO Menu



For detailed information on using the remote control to modify menu settings, refer to "Learning Menu Selection" on page 21.

To select the VIDEO menu:

Display → Highlight → Select



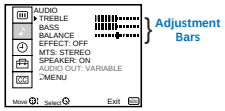
To restore the factory VIDEO settings

Press RESET on the remote control while the VIDEO menu is selected.

MODE *Customized picture viewing*	**VIVID:** Select for enhanced picture contrast and sharpness. **STANDARD:** Select to display a standard picture. **MOVIE:** Select to display a softer picture. **SPORTS:** Select to display a bright picture. You can alter the VIDEO menu settings (e.g., PICTURE, HUE) for each MODE. Select each MODE individually and then press RESET to restore factory settings.
PICTURE *Picture contrast*	Adjust right to increase picture contrast and create more vivid color. Adjust left to decrease picture contrast and soften the color.
BRIGHTNESS *Picture adjustment*	Adjust right to brighten the picture. Adjust left to darken the picture.
COLOR *Color saturation*	Adjust right to increase color intensity. Adjust left to decrease color intensity.
HUE *Color tones*	Adjust right to increase the green tones. Adjust left to decrease the green tones.
SHARPNESS *Picture detail*	Adjust right to sharpen the picture. Adjust left to soften the picture.
TRINITONE *White intensity adjustment*	**HIGH:** Select to give the white colors a blue tint. **MEDIUM:** Select to give the white colors a neutral tint. **NTSC STD:** Select to give the white colors a red tint.
COLOR CORRECT *Color ratio adjustment*	Select **ON** to emphasize reds and blues. Select **OFF** to emphasize greens.

Using your Menus (continued)

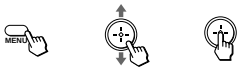
Using the AUDIO ♪ Menu



For detailed information on using the remote control to modify menu settings, refer to "Learning Menu Selection" on page 21.

To select the AUDIO ♪ menu:

Display ➡ Highlight ♪ ➡ Select



To restore the factory AUDIO settings

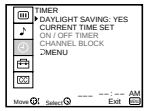
Press RESET on the remote control while the AUDIO menu is selected.

Tip

Press ◴ for quick access to TRUSURROUND DOLBY VIRTUAL.

TREBLE	Adjust left or right to decrease or increase higher pitched sound.
BASS	Adjust left or right to decrease or increase low pitched sounds.
BALANCE	Adjust left or right to emphasize left or right speaker volume.
EFFECT *Customize sound effect based on the program's audio type*	**TRUSURROUND:** Produces a virtual surround effect for Dolby-surround encoded programs. **SIMULATED:** Adds a surround-like effect to mono programs. **OFF:** Normal stereo or mono reception.
MTS *Enjoy stereo, bilingual and mono programs*	**MTS:** Press ↑ or ↓ to select one of the following options: **STEREO**: Select when viewing a broadcast in stereo. **SAP**: Select to listen to bilingual broadcast. (Non-SAP programs will be muted when this feature is selected) **MONO**: Select to reduce noise during stereo broadcasts for areas of weak reception. ***Quick MTS access:*** *Press MTS on your remote control to cycle through the MTS options.*
SPEAKER *Custom selection of audio output source*	**ON:** Select to listen to the sound from the TV speakers alone or the TV speakers and a separate stereo system. **OFF:** Select to turn off the TV speakers and listen to the TV's sound only through external audio system speakers.
AUDIO OUT *Easy control of volume adjustments*	AUDIO OUT can only be set when SPEAKER is set to OFF. **VARIABLE:** Sound output varies according to the TV settings. *Useful when you want to use your remote control to control the output of a separate audio system.* **FIXED:** Sound output is held at a fixed level through your stereo. *Use your A/V receiver's remote control to adjust the volume.*

Using the TIMER ◴ Menu

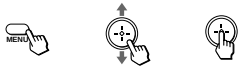


After setting the clock you can use the timer to turn the TV on and off.

For detailed information on using the remote control to modify menu settings, refer to "Learning Menu Selection" on page 21.

To select the TIMER ◴ menu:

Display ➡ Highlight ◴ ➡ Select



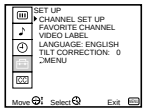
Tip

Set DAYLIGHT SAVING time before setting the clock. Any loss of power will cause these settings to be erased.

DAYLIGHT SAVING *Automatically adjusts the time*	**Spring:** Select YES to compensate for Daylight Saving Time. The current time automatically moves ahead one hour. **Fall:** Select NO at the end of Daylight Saving Time. The current time moves back one hour.
CURRENT TIME SET *Necessary for the ON/OFF TIMER*	**1** Press ⊕, then press up or down on the joystick until the current day is displayed, and press ⊕. **2** Press up or down on the joystick until the current hour and AM/PM is displayed, and press ⊕. **3** Press up or down on the joystick until the current minute is displayed, and press ⊕. The clock is set. Press MENU to exit.
ON/OFF TIMER *Wake up or scheduled viewing*	**1** Select a timer (1 or 2). **2** Press up or down on the joystick until the desired day or range of days is displayed, and press ⊕. **3** Press up or down on the joystick until the time (hours and minutes) that you want the TV to remain on is displayed, and press ⊕. **4** Press up or down on the joystick to set the time duration (maximum of 6 hours) and press ⊕. **TO CANCEL THE TIMER FUNCTION, PRESS RESET WHILE THE ON/OFF TIMER MENU IS DISPLAYED.** **5** Press up or down on the joystick to select the desired channel and press ⊕. The timer is now set. The TIMER indicator on your TV will be lit. Press MENU to exit. Performing AUTO PROGRAM will erase all TIMER settings.
CHANNEL BLOCK *Prevent access to certain channels*	You will be able to block two channels for a period of up to 12 hours. **FOLLOW STEPS 1-5 OF ON/OFF TIMER ABOVE** To erase your CHANNEL BLOCK settings, press RESET while in the CHANNEL BLOCK window. Performing AUTO PROGRAM will erase your CHANNEL BLOCK settings.

Using your Menus (continued)

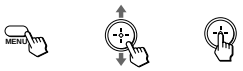
Using the SET UP 🖃 Menu



For detailed information on using the remote control to modify menu settings, refer to "Learning Menu Selection" on page 21.

To select the SET UP 🖃 menu:

Display ➡ Highlight 🖃 ➡ Select



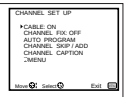
If any menu items are "grayed out", press the ANT button on your remote control so that a channel number appears.

Notes

- Your remote control can be programmed to operate your cable box. (see page 33)
- After setting CABLE, you will need to run AUTO PROGRAM.
- ON / OFF TIMER and CHANNEL BLOCK settings will be erased when CHANNEL FIX is set.

CHANNEL SET UP
Basic set up options for viewing

With the CHANNEL SET UP menu open:



1 Use the joystick to select the feature you want to change.
2 Press ⊕ to access the feature.

CABLE: Select ON if your TV is connected to a cable system. (Easy Setup Guide will set CABLE to OFF automatically if a cable channel is not available)

CHANNEL FIX: Press up or down on the joystick to set the TV's input to one of the following options:
2-6: When the cable box is connected to the VHF/UHF input and you do not want to switch to AUX mode. Press DBS/CABLE (FUNCTION) and then CH +/– to change channels.
AUX 2-6: When a cable box is connected to AUX and a cable or antenna is connected to VHF/UHF. You can alternate between the two inputs by pressing ANT.
VIDEO 1: When you have connected video equipment (e.g. A/V receiver) and you want the TV input fixed to it. You will be able to alternate between video sources.
OFF: When you want to switch CHANNEL FIX off.

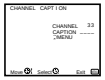
If the TV is in the AUX mode when you turn CHANNEL FIX off, press ANT to return to regular (CATV) mode.
TIMER and CHANNEL BLOCK settings are erased when CHANNEL FIX is set.

AUTO PROGRAM: Allows the TV to program all receivable channels.

CHANNEL SKIP/ADD: With the CHANNEL SKIP/ADD window open:

1 Press ⊕ to SKIP or ADD (only one option will be available).
2 Select the desired channel.

CHANNEL CAPTION: Label up to 12 channels, with up to four letters each. With the CHANNEL CAPTION window open:



1 Press ⊕ and then press up or down on the joystick to select the desired channel, and press ⊕ again.
2 Press up or down on the joystick to display the first letter or number of the caption and press ⊕ to select it.
3 Press ⊕. *To erase a Caption, press RESET.*

FAVORITE CHANNEL *User's favorite channels*	The FAVORITE CHANNEL feature provides a multi-picture presentation to enable direct channel selection. (for details on how to set up this feature, see "Setting and Selecting FAVORITE CHANNEL" on page 28) The FAVORITE CHANNEL feature is not available for the AUX input.
VIDEO LABEL *Label connected equipment for easy recognition (e.g. DBS, VHS, etc.)*	With the VIDEO LABEL menu open: **1** Press up or down on the joystick to select the input mode you want to label and press ⊕. **2** Press up or down on the joystick to select the label and press ⊕. **VIDEO LABEL Options:** VIDEO 1/2/3: VHS, 8mm, BETA, LD, GAME, DBS, DVD, WEB, RECEIVER, DTV, SKIP VIDEO 4: DVD, DTV, SKIP *If you select SKIP, your TV will skip this connection when you scan through video sources using the TV/VIDEO button.* *When VIDEO LABEL is set to WEB, the screen will darken, creating an ideal picture for WebTV viewing.*
LANGUAGE *User's preferred language*	Select from available languages to display all menus in your language of choice.
TILT CORRECTION *Adjust your picture*	Use this feature to correct any tilt of the picture. Press up or down on the joystick to select a correction between +5 and –5 and press ⊕.

Setting and Selecting FAVORITE CHANNEL

The FAVORITE CHANNEL feature provides a multi-picture presentation to enable direct channel selection.

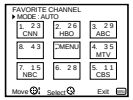
Your FAVORITE CHANNEL options can be set automatically or manually.

The factory setting for FAVORITE CHANNEL is AUTO. When FAVORITE CHANNEL is set to AUTO, the last eight channels selected with the 0-9 buttons will be set as FAVORITE CHANNEL options.

Setting FAVORITE CHANNEL manually

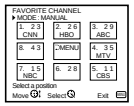
1 Select FAVORITE CHANNEL from the SET UP menu.

The FAVORITE CHANNEL menu will appear. If you set CHANNEL CAPTION, captions (e.g. CNN, HBO) for the channels selected will display. (see "CHANNEL CAPTION" on page 26)



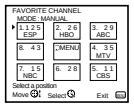
2 Select MODE and press ⊕.

Press up or down on the joystick to display MANUAL and press ⊕.



3 Press down on the joystick to select 1 and press ⊕.

Press up or down on the joystick to select a channel and press ⊕.



You have now selected a favorite channel for position 1.

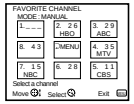
4 Use the joystick to select other FAVORITE CHANNEL positions and program other favorite channels.

5 Press MENU when you are finished.

Your favorite channels are now ready to use.

Resetting FAVORITE CHANNEL choices

You have the option of returning to the FAVORITE CHANNEL screen to adjust any of your favorite channel choices.
Simply proceed as described in "Setting FAVORITE CHANNEL manually" (skip step 2 if MANUAL is already selected). When you reach step 3, select the position you want to change and press ⊕. Press RESET to clear the channel for that position.



Press up or down on the joystick to select a new channel and press ⊕.
Press MENU when you are done.

Note

- Channels received through the VHF/UHF input and the AUX input cannot be viewed within the FAVORITE CHANNEL menu at the same time.

Setting and Selecting FAVORITE CHANNEL (continued)

Using the Yellow Labeled Buttons for FAVORITE CHANNEL Operations Some control buttons are located under the cover on the top of the remote control.	
FREEZE	Press to freeze the center picture. Press again to cancel the frozen picture and resume normal FAVORITE CHANNEL viewing.
OFF	Press to cancel the current operation and return to normal TV viewing.
Using the White Labeled Buttons for Center Picture Operations	
TV/VIDEO	Press to cycle the center picture through the video inputs. The surrounding channels will not change.
ANT	Press to replace the center picture with a channel received through the AUX input. Press again to return to CATV input.
CH ⊕ ⊖ or 0-9 and ENTER or JUMP	Press to select the channel for the center picture. (see "Watching the TV" on pages 15-16)

REFER TO THE ILLUSTRATION OF THE REMOTE CONTROL ON THE INSIDE FRONT COVER OF THIS MANUAL AS YOU REVIEW THIS CHART

Using FAVORITE CHANNEL

You can use the FAVORITE CHANNEL feature to display multiple channels for direct selection.

1 Press ⊕ once.

The current channel will be displayed in the center of the screen surrounded by your eight favorite channels.

A yellow frame will appear to indicate current channel selection. The TV will continually update each of the surrounding pictures.

2 When you find a channel that you wish to view, use the joystick to move the yellow frame to that picture.

The sound of the picture surrounded by the yellow frame will be received.

3 Press ⊕ to select the channel.

The selected channel will be retrieved and displayed for normal viewing.

Notes

- You cannot move the yellow frame until all of the surrounding pictures appear.
- If one of the pictures received through FAVORITE CHANNEL is snowy, the entire screen may appear snowy. In this case, erase the snowy channel using CHANNEL SKIP/ADD. (see "CHANNEL SET UP" on page 26)

Setting the Manufacturer's Code

You can use the supplied remote control to operate Sony or non-Sony video equipment that has an infrared sensor.

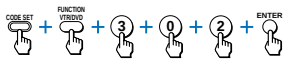
1 Set the VTR 1/2/3/DVD/MDP switch to the position through which you would like to access the video equipment.

The following Sony equipment is preset to each position of the switch:

VTR1 (303) Beta, ED Beta VCRs
VTR2 (302) 8 mm VCR
VTR3 (301) VHS VCR
DVD/MDP (751) DVD Player

2 Press CODE SET, VTR/DVD (FUNCTION), the 0-9 buttons to enter the manufacturer's code number (see the following chart), then press ENTER.

For example, to operate a Sony 8mm VCR:



If the remote control doesn't work

- Try repeating the set up procedures using the other codes listed for your equipment.

VCR code numbers

Manufacturer	Code
Sony	301, 302, 303
Aiwa	338, 344
Admiral (M. Ward)	327
Audio Dynamic	314, 337
Bell & Howell (M. Ward)	330, 343
Broksonic	319, 317
Canon	309, 308
Citizen	332
Craig	315, 302, 332
Criterion	315
Curtis Mathes	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318,341
Fisher	330, 334, 335, 333
Funai	338
General Electric	329, 304, 309
Go Video	322
Goldstar	332
Hitachi	306, 304, 305,338
Instant Replay	309, 308
JC Penney	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337, 345, 346, 347
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 333, 334, 330, 335, 338
Magnavox	308, 309, 310
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Optimus	327
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309, 310
Pioneer	308
Quasar	308, 309, 306
RCA/PROSCAN	304, 305, 308, 309, 311, 329, 312, 313, 310
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Singer	315
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324,325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Ward)	338, 327
Sylvania	308, 309, 338, 310
Symphonic	338
SV2000	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
XR-1000	315
Yamaha	330, 314, 336, 337
Zenith	331

Operating Video Equipment (continued)

MDP code numbers

Manufacturer	Code
Sony	701
Panasonic	704, 710
Pioneer	702

DVD Player code numbers

Manufacturer	Code
Sony	751
Panasonic	753
Pioneer	752
RCA	755
Toshiba	754

Tips

- *In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied remote control. In this case, please use the equipment's own remote control.*
- *When you remove the batteries, the code number may revert to the factory setting.*

To operate video equipment

1 Set the VTR1/2/3/DVD/MDP switch to the position through which you would like to access the video equipment.

2 Use the VCR/DVD/MDP buttons indicated in the following tables.

Operating a VCR using the remote control	
To turn On/Off	Press VTR/DVD (POWER). [Green Button]
To select a channel	Press the 0 – 9 buttons.
To change channels	Press CH +/–.
To record	Press ● (REC) while pressing ▭ (upper left).
To play	Press ►.
To stop	Press ■.
To fast forward	Press ▶▶.
To rewind the tape	Press ◀◀.
To pause	Press ❚❚. Press again to resume normal playback.
To scan the picture	Press ▶▶ or ◀◀ during playback. Release to resume normal playback.
To change input mode	Press TV/VTR.

Operating an MDP using the remote control	
To turn On/Off	Press VTR/DVD (POWER). [Green Button]
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. Press again to resume normal playback.
To scan the picture	Press ▶▶ or ◀◀ during playback. Release to resume normal playback.
To search a chapter forward or backward	Press CH +/–.

Operating a DVD Player using the remote control	
To turn On/Off	Press VTR/DVD (POWER). [Green Button]
To play	Press ►.
To stop	Press ■.
To pause	Press ❚❚. Press again to resume normal playback.
To step through different tracks of an audio disc	Press ▶▶ to step forward or ◀◀ to step backward.
To step through different chapters of a video disc	Press CH+ to step forward or CH– to step backward.
To display the Title menu	Press TITLE.
To display the DVD software menu	Press DVD MENU.
To select tracks directly	Press 0-9 buttons and ENTER.
To display the menu (Set up)	Press MENU.
To move the cursor in the menu	Move the joystick in the corresponding direction.

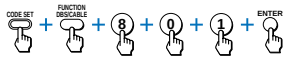
Operating a Cable Box or DBS Receiver

Setting the Manufacturer's Code

You can program the supplied remote control to operate a cable box or DBS receiver.

Press CODE SET, DBS/CABLE (FUNCTION), the 0-9 buttons to enter the manufacturer's code number (see the following chart), then press ENTER.

For example, to operate a Sony DBS receiver:



Cable box code numbers

Manufacturer	Code
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

DBS receiver code numbers

Manufacturer	Code number
Sony	801 (preset code for remote control)
General Electric	802
Hitachi	805
Hughes	804
Panasonic	803
RCA/PROSCAN	802, 808
Toshiba	806, 807

To operate the TV

Press TV (FUNCTION). Then use the TV control buttons to control the TV.

For more details on operating the cable box or DBS receiver

Refer to the operating instructions supplied with the equipment.

If the remote control doesn't work

- First, try repeating the set up procedures using the other codes listed for your equipment.

Tips

- *If more than one code number is listed, try entering them one by one until you come to the correct code for your equipment.*
- *If you enter a new code number, the code number you previously entered at that setting is erased.*
- *In some rare cases, you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's supplied remote control.*
- *Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code numbers may revert to the factory setting.*

Troubleshooting

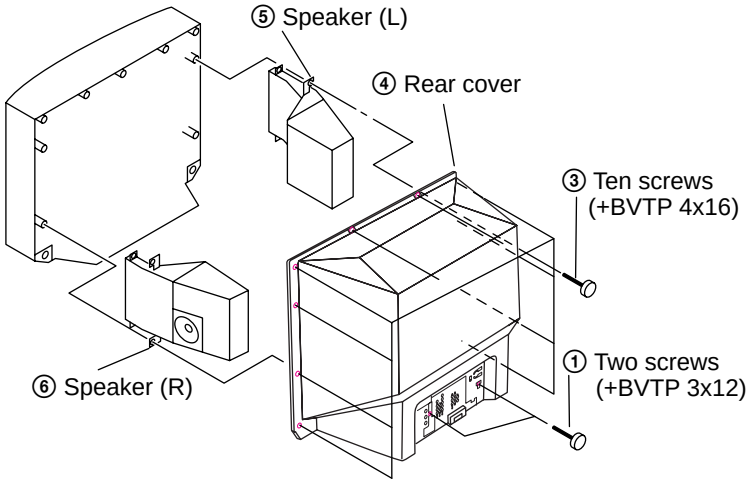
To reset the TV to factory settings	• First, turn the TV on. Then, while pressing the RESET button on the remote control, press the POWER button on the TV. The TV will turn itself off, then back on. When the TV turns on again, all settings will be reset, and the Easy Setup Guide will appear.
No picture (screen not lit), no sound	• If your TV does not turn on, and a red light keeps flashing, your TV may need service. Call your local Sony service center. • Make sure the power cord is plugged in. • Operate with the buttons on the TV and the remote control. • Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching video tapes, set to VIDEO 1, 2, 3 or 4. • Try another channel. It could be station trouble. • Perform Easy Setup Guide again using the SET UP button to return to the factory preset condition. (see "To perform AUTO SET UP again" on page 14)
Remote control does not operate	• Batteries could be weak. Replace the batteries. • Press TV (FUNCTION) when operating your TV. • Make sure the TV's power cord is connected securely to the wall outlet. • Locate the TV at least 3-4 feet away from fluorescent lights. • Check the S-Link connection. (see page 12) • Make sure the batteries are inserted correctly.
Dark, poor or no picture (screen lit), good sound	• Adjust PICTURE in the VIDEO menu. (see "PICTURE" on page 23) • Adjust BRIGHTNESS in the VIDEO menu. (see "BRIGHTNESS" on page 23) • Check antenna/cable connections. • Perform Easy Setup Guide again using the SET UP button to return to the factory preset condition. (see "To perform AUTO SET UP again" on page 14) • When VIDEO LABEL is set to WEB, the screen will darken, creating an ideal picture for WebTV viewing. (see "VIDEO LABEL" on page 28)
Good picture, no sound	• Press MUTING so that "MUTING" disappears from the screen. (see "MUTING" on page 16) • Check the MTS setting in the AUDIO menu. (see "MTS" on page 24) • Make sure SPEAKER is set to ON in the AUDIO menu. (see "SPEAKER" on page 24) • Perform Easy Setup Guide again using the SET UP button to return to the factory preset condition. (see "To perform AUTO SET UP again" on page 14)
Cannot receive upper channels (UHF) when using an antenna	• Make sure CABLE is OFF in the SET UP menu. (see "CHANNEL SET UP" on page 26) • Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see "CHANNEL SET UP" on page 26)
No color	• Adjust the COLOR in the VIDEO menu. (see "COLOR" on page 23) • Perform Easy Setup Guide again using the SET UP button to return to the factory preset condition. (see "To perform AUTO SET UP again" on page 14)

Only snow and noise appear on the screen	• Check the CABLE setting in the SET UP menu. (see "CHANNEL SET UP" on page 26) • Check the antenna/cable connections. • Make sure the channel is broadcasting programs. • Press ANT to change the input mode. (see "ANT" on page 16)
Dotted lines or stripes	• Adjust the antenna. • Move the TV away from noise sources such as cars, neon signs, or hair-dryers.
TV is fixed to one channel	• Try turning CHANNEL FIX off. (see "CHANNEL SET UP" on page 26) • Use AUTO PROGRAM to add receivable channels that are not presently in the TV memory. (see "CHANNEL SET UP" on page 26)
Double images or ghosts	• Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).
Cannot operate menu	• If the item you want to choose appears in gray, you cannot select it. Your TV may be receiving video input. Try pressing TV/VIDEO.
Cannot receive any channels when using cable tv	• Make sure CABLE is ON in the SET UP menu. (see "CHANNEL SET UP" on page 26) • Use AUTO PROGRAM to add receivable channels that are not presently in TV memory. (see "CHANNEL SET UP" on page 26)
Cannot gain enough volume when using a cable box	• Increase the volume at the cable box. Then press TV (FUNCTION) and adjust the TV's volume.
TV malfunctions when using the S-Link function	• Check the S-Link connection. (see on page 12)
CHANNEL INDEX does not display all available channels	• Make sure CABLE is ON in the SET UP menu. (see "CHANNEL SET UP" on page 26) • Use AUTO PROGRAM to add receivable channels that are not presently in the TV memory. (see "CHANNEL SET UP" on page 26)
FAVORITE CHANNEL does not display your choices	• Verify that MODE is set to MANUAL in the FAVORITE CHANNEL menu. (see "Setting FAVORITE CHANNEL manually" on page 28)
Some video sources do not appear when you press TV/VIDEO	• Ensure that VIDEO LABEL is not set to SKIP. (see "VIDEO LABEL" on page 27)
Recording through MONITOR OUT does not function properly when recording in PIP or P&P mode	• MONITOR OUT will not record both images in PIP or P&P. Only the main picture will be recorded. • If you are recording the main picture and you switch to the sound of the sub picture using the AUDIO button, the main picture will be recorded with sound from the other program.

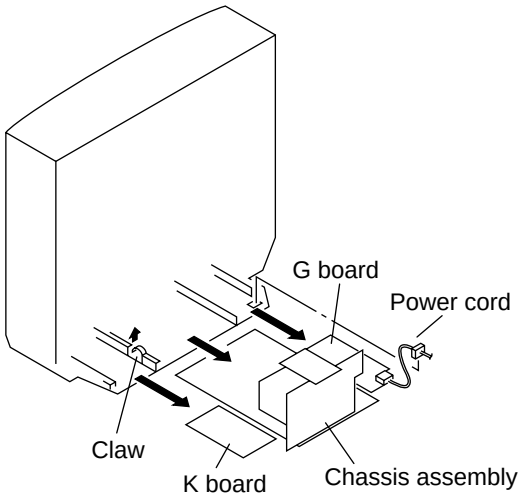
If, after reading these operating instructions, you have any additional questions related to the use of your Sony television, please call our Direct Response Center at 1-800-222-SONY (7669) (customers in the U.S. only) or (416) 499-SONY (7669) (customers in Canada only).

SECTION 2
DISASSEMBLY

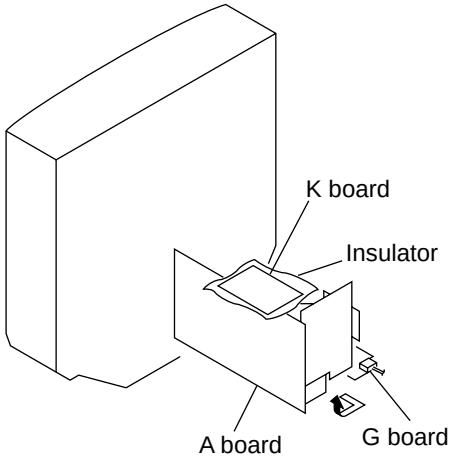
2-1. REAR COVER AND SPEAKER REMOVAL



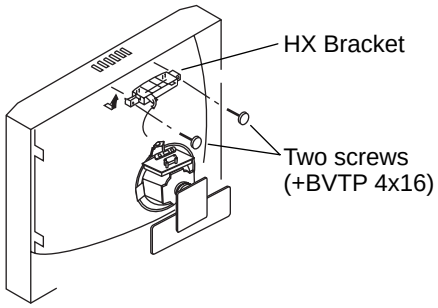
2-2. CHASSIS ASSY REMOVAL



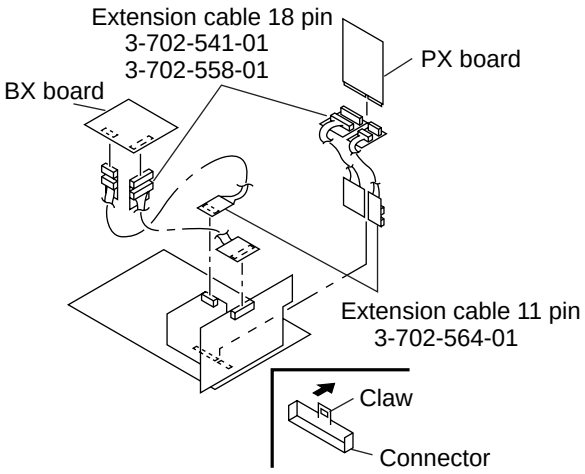
2-3. SERVICE POSITION

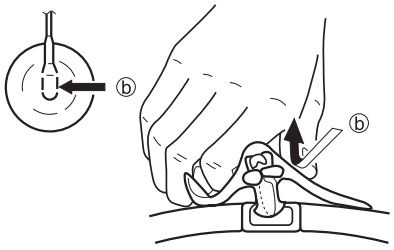


2-4. CONTROL ASSY REMOVAL

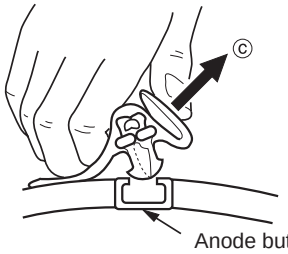


2-5. EXTENSION CABLE





Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ.



③ When one side of the rubber cap separates from the anode button, the anode-cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ.

• ANODE-CAP REMOVAL

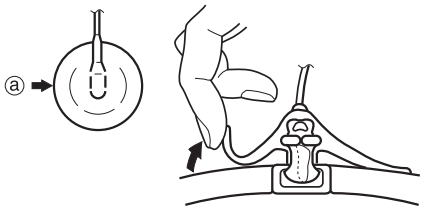
WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.

NOTE: After removing the anode, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shieldor carbon painted on the CRT.

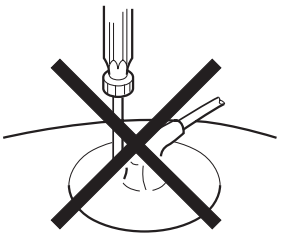
• HOW TO HANDLE AN ANODE CAP

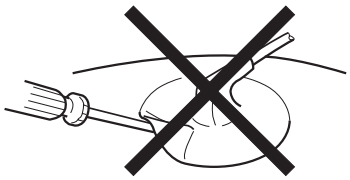
① Do not use sharp objects which may cause damage to the surface of the anode-cap.
② Do not squeeze the rubber covering too hard to avoid damaging the anode-cap. A material fitting called a shatter-hook terminal is built into the rubber.
③ Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.

• REMOVAL PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



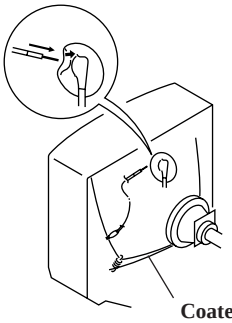


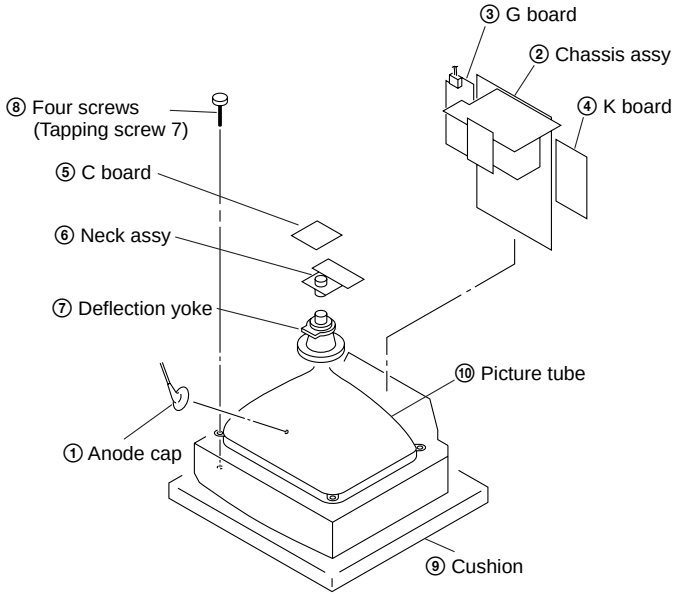
2-6. PICTURE TUBE REMOVAL

WARNING Before removing anode cap:

High voltage remains in the CRT even after the power is disconnected.

To avoid electrical shock, discharge CRT before attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.





SECTION 3
SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls and switch as follows unless otherwise noted:

VIDEO MODE: STANDARD
PICTURE control 100%
BRIGHTNESS control 50%

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)/White Balance

Note: Test Equipment Required

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

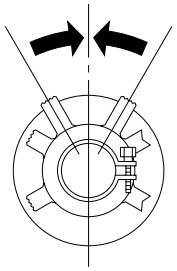
3-1. BEAM LANDING

Preparation:

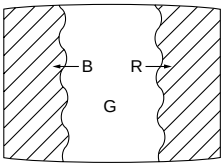
- Input a white pattern signal.
- Face the picture tube in a East or West direction to reduce the influence of geomagnetism.

NOTE: Do not use the hand degausser because it magnetizes the CRT .

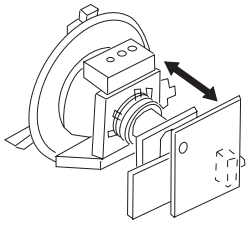
1. Input white pattern from pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



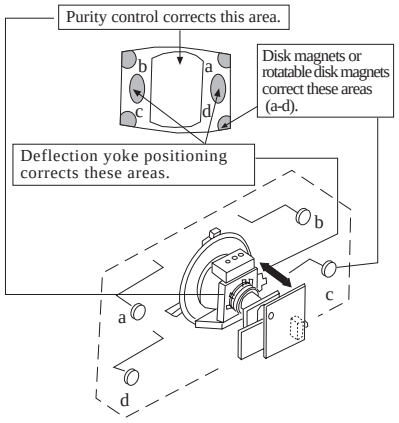
3. Input green pattern from pattern generator.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.



6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. When landing at the corner is not right, adjust by using the disk magnets.



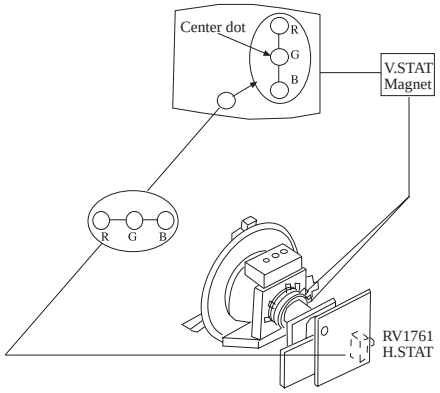
3-2. CONVERGENCE

Preparation:

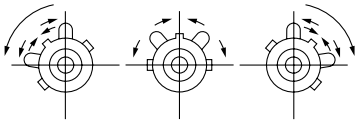
- Before starting, perform FOCUS, V. LIN and V. SIZE adjustments.
- Set BRIGHTNESS control to minimum.
- Input dot pattern.

(1) Vertical and Horizontal Static Convergence

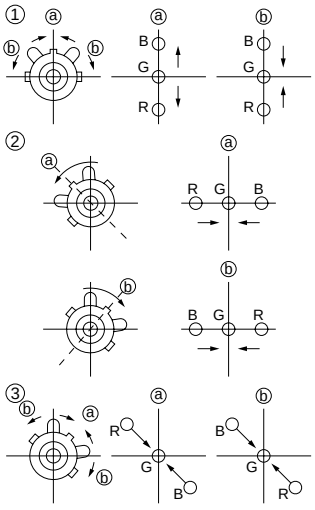
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen. (Vertical movement Adjust HSTAT RV to converge.



Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



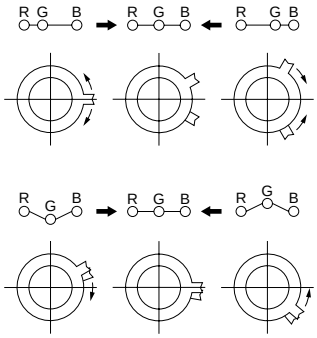
2. When the V. STAT magnet is moved in the direction of arrow ⓐ and ⓑ, red, green, and blue dots move as shown below:



Operation of BMC (Hexapole) Magnet

The respective dot positions resulting from moving each magnet interact, so perform adjustment while tracking.

Use the VSTAT tabs to adjust the red, green, and blue dots so they line up at the center of the screen (move the dots in a horizontal direction.)

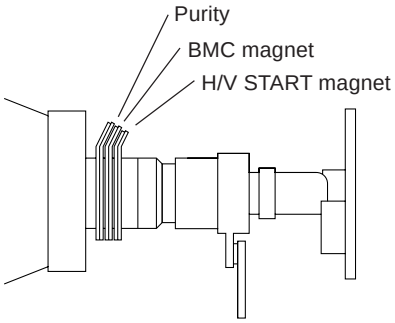


Y Separation Axis Correction Magnet Adjustment

1. Input cross-hatch pattern, adjust PICTURE to minimum and BRIGHTNESS to normal.

2. Adjust the deflection yoke upright so it touches the CRT.

3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical from top to bottom (open state).

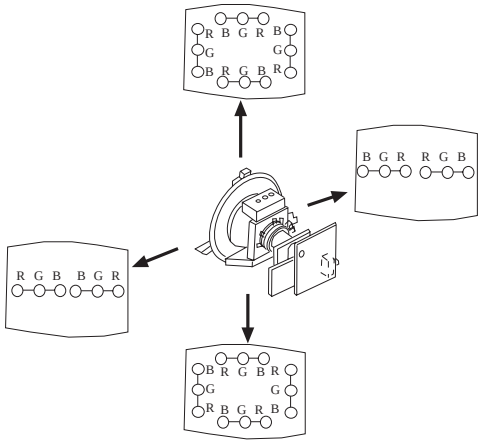


4. Return the deflection yoke to its original position.

(2) Dynamic Convergence Adjustment

- Before starting, perform Horizontal and Vertical Static Convergence Adjustment.

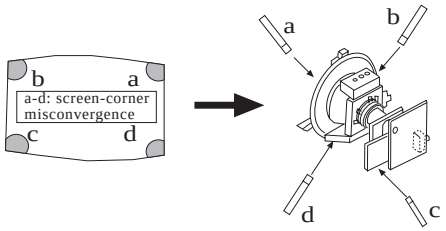
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below:



4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.
6. Adjust vertical red and blue convergence with VLT (VR).
7. Adjust horizontal red and blue convergence with YCH (VR).

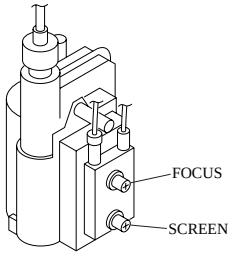
(3) Screen-corner Convergence

Affix a permalloy assembly to correspond with the misconverged areas:



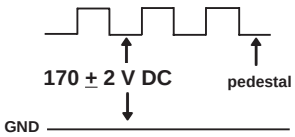
3-3. FOCUS

Adjust FOCUS control for best picture.



3-4. SCREEN (G2)

1. Input dot pattern from the pattern generator.
2. Set the PICTURE and BRIGHT controls at normal.
3. Adjust S BRT, G CUT, B CUT in service mode with an oscilloscope so that voltages on the red, green, and blue cathodes are 170V ± 2 V DC.
4. Observe the screen and adjust SCREEN (G2) VR on FBT to obtain the faintly visible background of dot signal.



3-5. WHITE BALANCE ADJUSTMENTS

NO.	Disp.	Item	Average
18	GDRV	Green Drive	31
19	BDRV	Blue Drive	25
20	GCUT	Green Cut-off	3
21	BCUT	Blue Cut-off	10
29	SBRT	Sub Bright	30

1. Input an entire white signal.
2. Set to Service adjustment Mode.
3. Set the PICTURE and BRIGHT to minimum.
4. Adjust with SBRT if necessary.
5. Select GCUT and BCUT with [1] and [4] .
6. Adjust with [3] and [6] for the best white balance.
7. Set the PICTURE and BRIGHT to maximum.
8. Select GDRV and BDRV with [1] and [4] .
9. Adjust with [3] and [6] for the best white balance.
10. After adjusting the white balance, adjust the white balance video four as follows:

NO.	Disp.	Item	Calculate the Average Data
22	4GDR	Green Drive	GDRV+2
23	4BDR	Blue Drive	BDRV +1
24	4GCT	Green Cut-off	GCUT
25	4BCT	Blue Cut-off	BCUT-1

11. Write into the memory by pressing [MUTING] then [ENTER] .

SECTION 4
SAFETY RELATED ADJUSTMENTS

⋈ R530, R531 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

Always perform the following adjustments when replacing the following components marked with a ◪ mark on the schematic diagram:

A BOARD:	IC351, IC501, D519, D520, D521, C531, C532, R387, R529, R530, R531, R532, R533, R550, T503
G BOARD:	IC643, R661

Step 1 Preparation before Confirmation

Turn the POWER switch ON.

Input a white signal and set the PICTURE and BRIGHT controls to maximum.

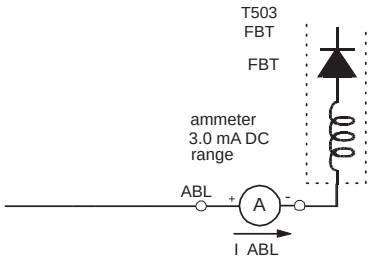
Confirm that the voltage at the check terminal of TP85 is more than 23.0 V DC when the set is operating normally.

At AC input: 120.0 ± 2.0 VAC

Step 2

Input a white signal and verify that I ABL is within the specified range: 2175 ± 100 µA.

At AC input: 120.0 ± 2.0 VAC



Step 3

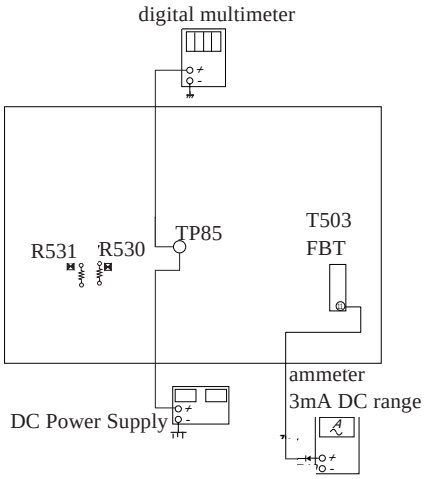
Record the voltage between TP85 and ground.

Step 4

Using an external DC power supply, apply voltage between TP85 and ground.

Increase the voltage gradually and confirm that the holdown works (raster disappears) at lower than the voltage recorded in Step 3.

Lower than 27.24 V DC
At AC input: 120.0 ± 2.0 VAC



A BOARD - CONDUCTOR SIDE

Step 5

Confirm that a voltage of more than 23.0 V DC appears between TP85 and ground.

At AC input: 120.0 ± 2.0 VAC

B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components marked with ◪ on the schematic diagram:

G BOARD: IC643, R661

1) Using Variac, apply AC input voltage: 130 ± 2.0 VAC
2) Input a monoscope signal.
3) Set the PICTURE control and the BRIGHTNESS control to initial reset value.
4) Confirm the voltage of G BOARD CN641 between pin ① to ground is less than 136.5 ± 1.0 V DC.
5) If step 4 is not satisfied, replace the R661and repeat the above steps.

SECTION 5
CIRCUIT ADJUSTMENTS

ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

Use Remote Commander (RM-Y144) to perform the following circuit adjustments:

NOTE : Test Equipment Required:

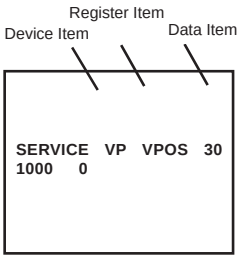
1. Pattern Generator
2. Frequency Counter
3. Digital Multimeter
4. Audio OSC

(1) Setting the Service Adjustment Mode

SERVICE MODE PROCEDURE

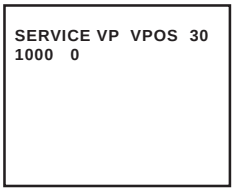
1. Standby mode. (Power off)
2. [DISPLAY] → [5] → [VOL (+)] → [POWER] on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN



3. The CRT displays the item being adjusted.
4. Press [2] or [5] on the Remote Commander to select the device item.
5. Press [1] or [4] on the Remote Commander to select the item.
6. Press [3] or [6] on the Remote Commander to change the data.
7. To recover the latest values, press "0" then [ENTER].
8. Press [MUTING] then [ENTER] to write into memory.

SERVICE ADJUSTMENT MODE MEMORY

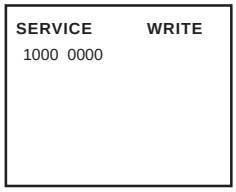


[MUTING] Green

↓

[ENTER] Red

9. Press [8] then [ENTER] on the Remote Commander to reset.



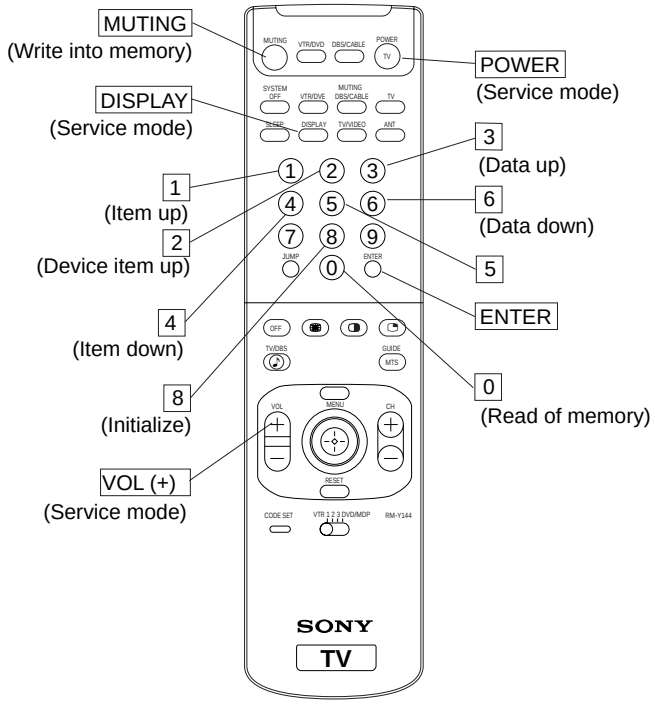
Carry out step 8 when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

10. Turn set off and on to exit.

(2) Memory Write Confirmation Method

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

(3) Adjust Buttons and Indicator



RM-Y144

(4) Service Data

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Avg.
		VP CXA2095AS				
1	VPOS	V-Position	0-63	Adjust	20	21
2	VSIZ	V-Size	0-63	Adjust	20	38
3	PVSZ	V-Size	0-63	Adjust	20	31
4	VCOM	V-Compensation	0-3	Fix	1	1
5	VLIN	V-Linearity	0-15	Adjust	7	12
6	VSCO	S-Correcttion	0-15	Adjust	7	8
7	HPOS	H-Position	0-15	Adjust	7	14
8	HSIZ	H-Size	0-63	Adjust	18	23
9	PHSZ	H-Size	0-63	Adjust	20	9
10	PAMP	PIN-Compensation	0-63	Adjust	31	19
11	UPIN	Upper-CornerPin	0-15	Adjust	7	6
12	LPIN	Lower-CornerPin	0-15	Adjust	7	8
13	PPHA	Pin-Phase	0-15	Adjust	7	3
14	AFC	AFC	0-3	Fix	2	2
15	VBOW	AFC-Bow	0-15	Adjust	7	8
16	VANG	AFC-Angle	0-15	Adjust	7	3
17	REF	Reference-Position	0-3	Fix	2	2
18	GDRV	Green-Drive	0-63	Adjust	31	31
19	BDRV	Blue-Drive	0-63	Adjust	31	25
20	GCUT	Green-Cutoff	0-15	Adjust	7	3
21	BCUT	Blue-Cutoff	0-15	Adjust	7	10
22	4GDR	Green-Drive	0-63	Adjust	31	29
23	4BDR	Blue-Drive	0-63	Adjust	31	24
24	4GCT	Green-Cutoff	0-15	Adjust	7	8
25	4BCT	Blue-Cutoff	0-15	Adjust	7	11
26	SCON	Sub-Contrast	0-15	Adjust	7	6
27	SHUE	Sub-Hue	0-15	Adjust	7	6
28	SCOL	Sub-Color	0-15	Adjust	7	7
29	SBRT	Sub-Brightness	0-63	Adjust	31	30
30	SSHP	Sub-Sharpness	0-15	Fix	7	7
31	CDM2	Count Down Mode2	“0, 1”	Fix	1	1
32	DPIX	Dynamic-Picture	“0, 1”	Fix	1	1
33	Y-DC	DC-Transmission	“0, 1”	Fix	1	1
34	ABLM	ABL	“0, 1”	Fix	1	1
35	NOTC	CromaTrap	“0, 1”	Fix	0	0
36	CROM	CromaTrap-Adjust	0-15	Fix	7	7
37	TOT	TOT-Filter	“0, 1”	Fix	1	1
38	PREL	Pre/Over-Shoot	0-3	Fix	0	0
39	SHPF	Sharpness-f0	0-3	Fix	2	2
40	RON	Red-Off	“0, 1”	Fix	1	1
41	GON	Green-Off	“0, 1”	Fix	1	1
42	BON	Blue-Off	“0, 1”	Fix	1	1
43	CDMD	V-Countdown	“0, 1”	Fix	0	0
44	HBSW	HBLKSW	“0, 1”	Fix	0	0
45	LBLK	Left Blanking	0-15	Fix	7	7
46	RBLK	Right Blanking	0-15	Fix	7	7
		AP BH3856				
47	SVOL	Sub-Volume	0-15	Fix	0	0
48	SBAL	Sub-Balance	0-15	Fix	7	7
49	SBAS	Sub-Bass	0-15	(Fix by Model)	7	7
50	STRE	Sub-Treble	0-15	(Fix by Model)	7	7
		TS TC9447F				
51	TB0U	B0h Upper 8bit	0-255	Fix	0	0
52	TB0L	B0h Lower 8bit	0-255	Fix	0	0
53	TB1U	B1h Upper 8bit	0-255	Fix	0	0
54	TB1L	B1h Lower 8bit	0-255	Fix	0	0
55	TB2U	B2h Upper 8bit	0-255	Fix	57	57
56	TB2L	B2h Lower 8bit	0-255	Fix	0	0

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Avg.
57	TBFU	BFh Upper 8bit	0-255	Fix	166	166
58	TBFL	BFh Lower 8bit	0-255	Fix	0	0
59	TC0U	C0h Upper 8bit	0-255	Fix	90	90
60	TC0L	C0h Lower 8bit	0-255	Fix	0	0
61	TC1U	C1h/C7h Upper 8bit	0-255	Fix	79	49
62	TC1L	C1h/C7h Lower 8bit	0-255	Fix	0	0
63	MADU	ADh Upper 8bit	0-255	Fix	64	64
64	MADL	ADh Lower 8bit	0-255	Fix	0	0
65	MB0U	B0h Upper 8bit	0-255	Fix	92	92
66	MB0L	B0h Lower 8bit	0-255	Fix	0	0
		3D uPD6488				
67	CGAN	CGAIN	“0, 1”	Fix	1	1
68	AVAP	AVAPON	“0, 1”	Fix	1	1
69	MS	MS0/MS1	0-2	Fix	0	0
70	YDLL	YDELAY-L	0-7	Fix	2	2
71	HRD8	HRD08	“0, 1”	Fix	0	0
72	HRD7	HRD00-07	0-255	Fix	12	12
73	DYCO	DYCOR	0-15	Fix	5	5
74	DYGA	DYGAIN	0-15	Fix	8	8
75	DCCO	DCCOR	0-15	Fix	3	3
76	DCCG	DCGAIN	0-15	Fix	7	7
77	VTR0	VTR0/VTR1	0-2	Fix	0	0
78	VTRH	VTRH	0-2	Fix	2	2
79	VTRR	VTRR	0-15	Fix	7	7
80	SELJ	SELJ	“0, 1”	Fix	1	1
81	HSDR	HSDR	0-15	Fix	7	7
82	WSCO	WSCOR	0-15	Fix	15	15
83	LDSR	LDSREF	0-15	Fix	7	7
84	WSD1	WSDR1	0-15	Fix	15	15
85	WSD2	WSDR2	0-15	Fix	15	15
86	VAPG	VAPGAIN	0-7	Fix	4	4
87	VAPI	VAPINV	0-31	Fix	15	15
88	MDTE	MDTES	“0, 1”	Fix	0	0
89	YTM8	YTM87	“0, 1”	Fix	0	0
90	DYTR	DYTRAP	“0, 1”	Fix	1	1
91	VHG	VHG	0-3	Fix	3	3
92	YH87	YH87	“0, 1”	Fix	0	0
93	YSG	YSG	“0, 1”	Fix	1	1
94	YTG	YTG	0-3	Fix	1	1
95	VTMR	YTMREF	0-15	Fix	12	12
96	VHRE	VHREF	0-15	Fix	11	11
97	YT1R	YT1REF	0-15	Fix	2	2
98	CT2Y	CT2YT	“0, 1”	Fix	0	0
99	CTG	CTG	0-3	Fix	1	1
100	CTMR	CTMREF	0-15	Fix	10	10
101	CT2R	CT2REF	0-15	Fix	10	10
102	CT1R	CT1REF	0-15	Fix	7	7
		PI TA1226N				
103	SHPR	Sharpness	0-127	Fix	59	59
104	SRTS	SRT Start Position	“0, 1”	Fix	3	3
105	GIRE	Gamma Start Point	0-3	Fix	3	3
106	GCUR	Gamma Curve	“0, 1”	Fix	0	0
107	RS	RS	0-7	Fix	0	0
108	RTC	RTC	0-7	Fix	4	4
		DC CXA2026AS				
109	DCSF	DCSHIFT	0-63	Fix or Adjust	32	41
110	UYBW	UYBOW	0-63	Fix	31	31
111	LYBW	LYBOW	0-63	Fix	31	31
112	HAMP	HAMP	0-63	Fix or Adjust	23	9

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Avg.
113	UCBW	UCBOW	0-63	Fix	14	14
114	LCBW	LCBOW	0-63	Fix	14	14
115	UMBH	UMBH	0-63	Fix	15	15
116	LMBH	LMBH	0-63	Fix	15	15
117	PWM	PWM	0-63	Fix	63	63
118	HTLT	HTILT	0-63	Fix	63	63
119	UTLT	UTILT	0-63	Fix	63	63
120	LTLT	LTILT	0-63	Fix	63	63
121	HDTY	HDUTY	0-4	Fix	3	3
122	TOFF	TILT OFF	“0, 1”	Fix	1	1
123	DAC0	DAC0	0-255	Fix	255	255
124	DAC1	DAC1	0-255	Fix	255	255
		PP SAB9076				
125	SMT6	SMART6	“0, 1”	Fix	1	1
126	SKP6	SKIP6	“0, 1”	Fix	0	0
127	BGHP	BGhfp	0-15	Adjust	7	8
128	BGVP	BGvfp	0-15	Adjust	8	8
129	MAHP	MAhfp	0-15	Adjust	6	6
130	MAVP	MAvfp	0-255	Adjust	24	24
131	SAHP	SAhfp	0-15	Fix	3	3
132	SAVP	SAvfp	0-255	Fix	24	24
133	VPED	PedestV	0-15	Fix	14	0
134	UPED	PedestU	0-15	Fix	14	0
135	MDEC	“16h, bit 0-4”	0-32	Fix	18	18
136	SDEC	“15h, bit 0-4”	0-32	Fix	16	16
137	DISS	“17h, bit 0-7”	0-126	Fix	2	2
138	BSIZ	—	0-255	Fix	34	34
139	POFH	—	0-15	Fix	11	11
140	POFV	—	0-15	Fix	6	6
141	DHPS	Display H Position Start	0-15	Fix	4	5
142	P&PV	“SDhf , MDhfp under P&P”	0-255	Fix	62	62
143	BBR0	—	0-3	Fix	1	1
144	BCL0	—	0-7	Fix	7	7
145	BBR2	—	0-3	Fix	2	2
146	BCL2	—	0-7	Fix	6	6
147	BBR3	—	0-3	Fix	0	0
148	BCL3	—	0-7	Fix	7	7
		SP SDA9288				
149	PYSD	Select Delay	0-15	Fix	3	3
150	PIPH	PIP H-Position	0-127	Fix	78	78
151	PIPV	PIP V-Position	0-63	Fix	18	18
152	PYDL	PIP Y-delay	0-7	Fix	0	0
153	PHDL	H-pulse delay	0-15	Fix	3	3
154	PMVD	Main V-pulse delay	0-31	Fix	16	16
155	PIVD	Inset V-pulse delay	0-31	Fix	22	22
156	PCON	Inset Contrast	0-15	Fix	7	7
157	FRMY	Frame Y	0-15	Fix	7	7
158	CHRI	Input Polarity	“0, 1”	Fix	1	1
159	CHRO	Output Polarity	“0, 1”	Fix	1	1
160	IPER	Inset Pedestal R-Y	0-15	Fix	0	0
161	IPEB	Inset Pedestal B-Y	0-15	Fix	0	0
162	PCPS	CLPS BIt Control	“0, 1”	Fix	0	0
163	PCPF	CLPFIX BIt Control	“0, 1”	Fix	0	0
164	PSEL	SELDOWN Bit Control	“0, 1”	Fix	1	1
165	PPLL	PLL Filter Bits	0-3	Fix	1	0
166	PVNR	PVNR bit	“0, 1”	Fix	0	1
		MC CXA2019				
167	MHUE	HUE	0-63	Fix	26	26
168	MCOL	COLOR	0-63	Fix	35	35

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Avg.
169	MSCO	SUB CONT	0-15	Adjust	7	7
170	MSCL	SUB COLOR	0-15	Adjust	7	7
171	MSHU	SUB HUE	0-15	Adjust	7	7
172	MTOT	TOT ON	“0, 1”	Fix	1	1
173	MTRP	TRAP ON	“0, 1”	Fix	0	0
174	MTRA	CTRAPADJ	0-15	Fix	7	7
175	MCD2	CD MODE2	“0, 1”	Fix	1	1
176	MFSC	FSC OUT	“0, 1”	Fix	1	1
177	MYDR	Y DRIVE	0-31	Fix	22	22
178	MVPE	V PED	0-15	Adjust	7	7
179	MUPE	U PED	0-15	Adjust	7	7
180	MRVP	RV PED	0-15	Fix	0	0
181	MRUP	RU PED	0-15	Fix	0	0
182	MDCT	DC TRAN	0-7	Fix	0	0
183	MRYD	RY DRIVE	0-31	Fix	31	31
184	MPRE	PRE OVER	0-3	Fix	0	0
185	MRUD	RU DRIVE	0-31	Fix	15	15
186	MRVD	RV DRIVE	0-31	Fix	15	15
187	MDLY	DELAY	0-3	Fix	0	0
188	MSCR	SCP BGR	0-3	Fix	1	1
189	MSCF	SCP BGF	0-3	Fix	1	1
		IC CXA2019				
190	ICYC	CV/YC	“0, 1”	(Fix by Model)	1	1
191	IHUE	HUE	0-63	Fix	24	24
192	ICOL	COLOR	0-63	Fix	37	37
193	ISCO	SUB CONT	0-15	Adjust (FD7)	6	7
194	ISCL	SUB COLOR	0-15	Adjust (FD7)	7	7
195	ISHU	SUB HUE	0-15	Adjust (FD7)	7	7
196	ITOT	TOT ON	“0, 1”	Fix	1	1
197	ITRP	TRAP ON	“0, 1”	Fix	0	0
198	ITRA	CTRAPADJ	0-15	Fix	7	7
199	ICD2	CD MODE2	“0, 1”	Fix	1	1
200	IYDR	Y DRIVE	0-31	Fix	24	24
201	IVPE	V PED	0-15	Adjust (FD7)	7	7
202	IUPE	U PED	0-15	Adjust (FD7)	7	7
203	IRVP	RV PED	0-15	Fix	0	0
204	IRUP	RU PED	0-15	Fix	2	2
205	IDCT	DC TRAN	0-7	Fix	0	0
206	IRYD	RY DRIVE	0-31	Fix	31	31
207	IPRE	PRE OVER	0-3	Fix	0	0
208	IRUD	RU DRIVE	0-31	Fix	15	15
209	IRVD	RV DRIVE	0-31	Fix	15	15
210	IDLY	DELAY	0-3	Fix	0	0
211	ISCR	SCP BGR	0-3	Fix	1	1
212	ISCF	SCP BGF	0-3	Fix	1	1
		DA CXA1315				
213	RTCO	DAC0 (Rotation Coil)	0-63	Fix	32	32
214	2HUE	DAC1 (CXA2039 Hue)	0-63	Adjust	28	28
215	2COL	DAC2 (CXA2039 COL)	0-63	Adjust	31	42
		CC CXP858				
216	CRIL	CRI Count Low	0-15	Fix	2	2
217	CFLD	“Feild Count for VCR FF,REV”	0-15	Fix	5	5
218	CCDI	CCD INT	0-7	Fix	3	3
219	CRIP	CRI & Parity	0-7	Fix	4	4
220	CRIT	CRI Time Constant	0-3	Fix	-	1
221	CSB1	Sync Slice Bias 1	0-3	Fix	3	3
222	CSB2	Sync Slice Bias 2	0-7	Fix	4	4
223	CREP	CRI Signal End Position	0-256	Fix	142	142
224	CDSD	Data Start Delay	0-31	Fix	8	8

No.	Register Name	Description	Data Range	Adj/Fix	Initial Data	Avg.
225	CCDS	Caption Data Threshold	0-31	Fix	9	9
226	CHMK	p8_hmask	0-63	Fix	42	42
227	CHSY	p8_hsyc	0-255	Fix	136	136
		OP CXP858/CXA2025 Color				
228	DISP	OSD Position	0-63	(Touch Up)	1	13
229	PDPS	PIP Display Position Start	0-63	(Touch Up)	1	35
230	PDP0	PIP Display Position 0	0-3	(Touch Up)	1	1
231	PDP1	PIP Display Position 1	0-7	(Touch Up)	4	4
232	PDP2	PIP Display Position 2	0-7	(Touch Up)	4	3
233	KILS	Color Killer SW	“0, 1”	-	1	1
		ID 0-5				
234	ID-0	ID-0 (Language: 89/25/9)	0-255	Fix by Model	89	89
235	ID-1	ID-1	0-255	Fix	63	63
236	ID-2	D-2 (Audio Effect)	0-255	Fix by Model	63	63
237	ID-3	ID-3 (Front Control: 0/64)	0-255	Fix by Model	0	0
238	ID-4	ID-4 (Auto Shut Off: 139/171)	0-255	Fix by Model	139	139
239	ID-5	ID-5	0-255	-	137	137
		ID 6-7				
240	ID-6	ID-6 (PinP/P&P)	0-255	Fix by Model	38	38
241	ID-7	ID-7	0-255	Fix	0	0

SERVICE IDO 25

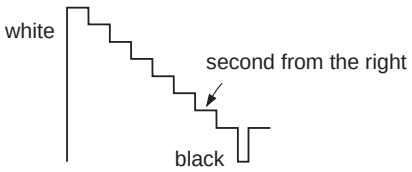
Note: Items 1-241 show adjustment order.

(5) Feature ID Map

KV-NO	Dest	ID 0	ID 1	ID 2	ID 3	ID 4	ID 5	ID 6	ID 7
KV-32XBR200	US	89	63	63	0	139	173	38	0
KV-32XBR200	CND	89	63	63	0	139	173	38	0
KV-36XBR200	US	89	63	63	0	139	173	38	0
KV-36XBR200	CND	89	63	63	0	139	173	38	0

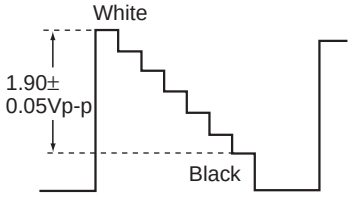
SUB BRIGHT ADJUSTMENT (SBRT)

1. Set to Service adjustment Mode.
2. Input a gray scale pattern signal.
3. Set the PICTURE to minimum, and BRIGHT to normal.
4. Select SBRT with [1] and [4] .
5. Adjust SUB BRIGHT level with [3] and [6] so that the stripe second from the right is faintly visible.
6. Write into the memory by pressing [MUTING] then [ENTER].



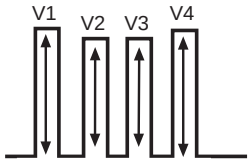
SUB CONTRAST ADJUSTMENT (SCON)

1. Input a 75% color-bar signal.
2. Set to VIDEO mode = STANDARD, COLOR = minimum, PICTURE = 100%.
   GON = 0 (OFF), BON = 0 (OFF).
3. Set to Service adjustment Mode and Connect an oscilloscope pin ① of CN351 on A Board.
4. Select SCON with [1] and [4] .
5. Adjust with [3] and [6] for the 1.90 ± 0.05Vp-p of level.
6. Write into the memory by [MUTING] then [ENTER].



SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)

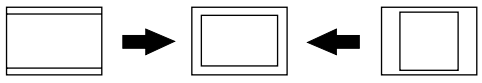
1. Input a color bar signal.
2. Set to Service adjustment Mode and set to
   VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = 50%
   HUE = 50%.
3. Connect an oscilloscope to CN351 Pin ③ of A Board.
4. Select SHUE and SCOL with [1] and [4] .
5. Adjust with [3] and [6] for the V1 = V4 (SCOL) and V2 = V3 (SHUE).
6. After adjustment write SHUE data 1 step down and SCOL data 2 steps up.
7. Write into the memory by pressing [MUTING] then [ENTER].



H. SIZE ADJUSTMENT (HSIZ)

1. Input a monoscope signal.
2. Set to Service adjustment Mode.
3. Select HSIZ with [1] and [4] .
4. Adjust with [3] and [6] for the best Horizontal size.
5. Write into the memory by pressing [MUTING] then [ENTER].

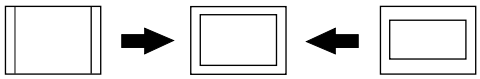
H. SIZE



V. SIZE ADJUSTMENT (VSIZ)

1. Input a monoscope signal.
2. Set to Service adjustment mode.
3. Select VSIZ with 1 and 4 .
4. Adjust with 3 and 6 for the best vertical size.
5. Write into the memory by pressing MUTING then ENTER.

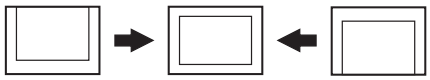
V. SIZE



V. POSITION ADJUSTMENT (VPOS)

1.Input a monoscope signal.
2.Set to Service adjustment Mode.
3.Select VPOS with 1 and 4 .
4.Adjust with 3 and 6 for the best vertical center.
5.Write into the memory by pressing MUTING then ENTER.

V. POSITION

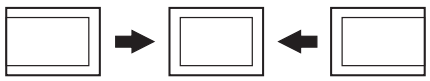


H. POSITION ADJUSTMENT (HPOS)

Perform this adjustment after H. FREQUENCY ADJ. (HFRE).

1. Input a monoscope signal.
2. Set the Service adjustment Mode.
3. Select HPOS with 1 and 4 .
4. Adjust with 3 and 6 for the best horizontal center.
5. Write into the memory by pressing MUTING then ENTER.

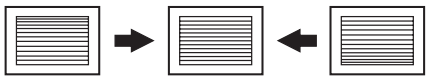
H. POSITION



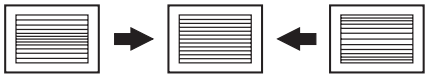
V LINEARITY (VLIN), V CORRECTION (VSCO), PIN AMP (PAMP) AND PIN PHASE (PPHA) ADJUSTMENTS

1. Input a cross-hatch signal.
2. Set to Service adjustment Mode.
3. Select VLIN, VSCO, PAMP, and PPHA with 1 and 4.
4. Adjust with 3 and 6 for the best picture.
5. Write the memory by Pressing MUTING then ENTER.

V LINEARITY(VLIN)

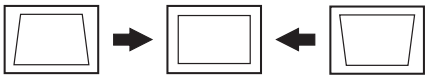


VS CORRECTION (VSCO)



PIN AMP (PAMP)

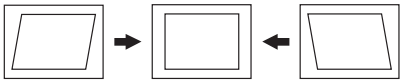
PIN PHASE (PPHA)



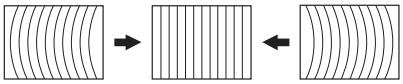
V ANGLE (VANG), V BOW (VBOW), UPPER PIN (UPIN) AND LOW PIN (LPIN) ADJUSTMENTS

1. Input a cross hatch signal.
2. Set to Service adjustment Mode.
3. Select VVANG, VBOW, UPIN, and LPIN with 1 and 4 .
4. Adjust with 3 and 6 for the best picture.
5. Write the memory by Pressing MUTING then ENTER.

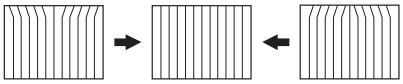
V ANGLE (VANG)



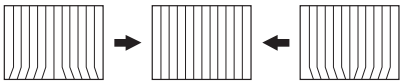
V BOW (VBOW)



UPPER PIN (UPIN)



LOW PIN (LPIN)



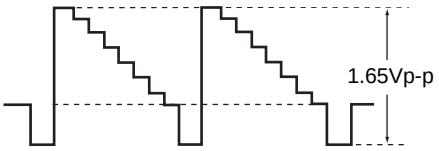
A BOARD

Y/B–Y/R–Y LEVEL ADJUSTMENT

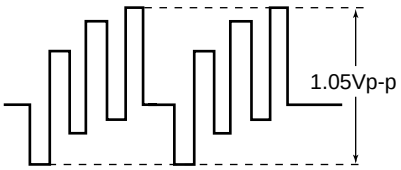
1. Set: VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = 50%
   HUE = 50%
2. Set a select Video 4 (DVD) Mode.
3. Input a 75% color bar signal.

4. Connect an oscilloscope to CN351 pin ③ on A board.
5. Set to Service Mode and select 2COL and 2HUE with 1 and 4.
6. Adjust with 3 and 6 for 2COL and 2HUE so that even flat signal.
7. After adjust write 2HUE data 4 steps down.
8. Write into the memory by pressing MUTING then ENTER .

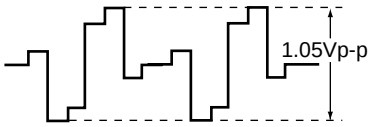
(75 ohms open level)
Y LEVEL (INPUT)



B-Y LEVEL (INPUT)

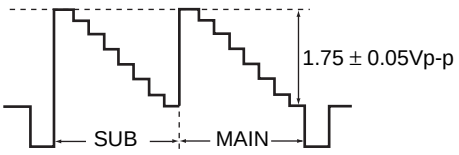


R-Y LEVEL (INPUT)



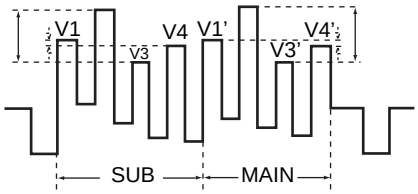
P&P SUB CONTRAST ADJUSTMENT (MSCO, ISCO)

1. Input a 75% color-bar signal.
2. Set: VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = minimum
   GON = 0 (OFF), BON = 0(OFF),
   TRINITONE = medium.
3. Set P&P mode.
4. Connect an oscilloscope to CN1103 pin ④ of A board and GND.
5. Set to Service Mode and select MSCO (main window) and ISCO (sub window) with 1 and 4.
6. Adjust with 3 and 6 for the 1.75 ± 0.05Vp-p of level.
7. Write into the memory by pressing MUTING then ENTER.



P&P SUB COLOR, SUB HUE ADJUSTMENT (MCOL, MSHU, ICOL, ISHU)

1. Input a 75% Color-bar signal.
2. Set: VIDEO mode = STANDARD
   PICTURE = 100%
   COLOR = 50%
   HUE = 50%,
   TRITONE = medium.
3. Set P&P mode.
4. Connect an oscilloscope to CN1103 pin ⑤ of A board and GND.
5. Set to Service Mode and select MCOL , MSHU (main window) and ICOL, ISHU (sub window) with 1 and 4.
6. Adjust with 3 and 6.
7. After adjust write MSHU and ISHU data 1 step down.
8. Write into the memory by pressing MUTING then ENTER .



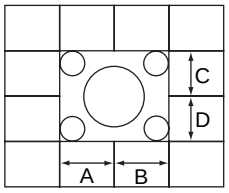
SUB COLOR
V1–V4= ±0.1V
V1'–V4'= ±0.1V

SUB HUE
V3–V2= ±0.1V → 1 STEP DOWN
V3'–V2'= ±0.1V →1 STEP DOWN

P&P ACQUISITION ADJUSTMENT (MAHP, MAVP)

1. Input a Monoscope signal.
2. Set PICTURE = 100%.
3. Set P&P mode and set CHANNEL INDEX mode.
4. Set to Service Mode and select MAHP and MAVP with 1 and 4.
5. Adjust with 3 and 6 for the best center (main window).
6. Write the memory by pressing MUTING then ENTER .

NEED TO ADJUST AFTER
GEOMETRIC ADJUST

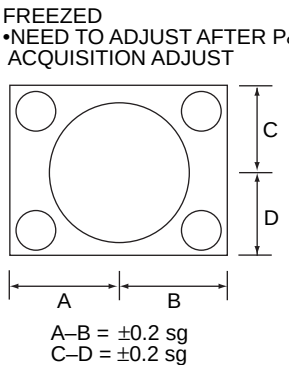


A–B = ±0.2 sg
C–D = ±0.2 sg

BACKGROUND POSITION ADJUSTMENT (BGHP, BGVP)

NOTE: Prior to this adjustment, the P&P ACQUISITION ADJUSTMENT must be performed (see previous page).

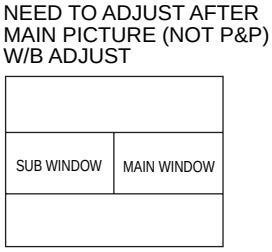
1. Input a monoscope signal.
2. Set VIDEO mode = STANDARD.
3. Freeze a main picture.
4. Set to Service Mode and select BGHP (pp), BGVP (pp) with 1 and 4.
5. Adjust with 3 and 6 for the best center.
6. Write into the memory by pressing MUTING then ENTER.



A–B = ±0.2 sg
C–D = ±0.2 sg

P&P WHITE BALANCE ADJUSTMENT (MUPE, MVPE, IUPE, IVPE)

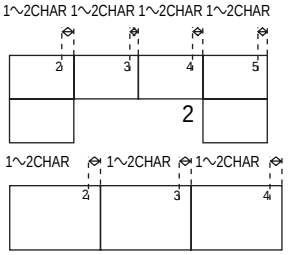
1. Input a 40 IRE white signal.
2. Set to VIDEO mode = STANDARD.
3. Set to P&P mode.
4. Set to Service Mode and select MUPE MVPE (main window), IUPE IVPE (sub window) with 1 and 4 .
5. Adjust with 3 and 6 for white balance.
6. Write into the memory by pressing MUTING then ENTER .



*9300 degrees K +8 MPCD

P&P OSD ADJUSTMENT (PDPS)

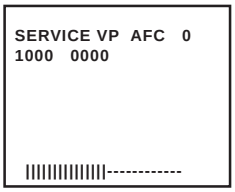
1. Input a monoscope signal.
2. Set to channel INDEX mode.
3. Adjust so right side edge of P&P OSD is 1 ~ 2 characters from border.
   ADJUST……PDPS (OP)
   If necessary, adjust PDP 0
   PDP 1
   PDP 2
4. Push the P&P off.
5. Push the return key for favorite channel.
6. Confirm 1 ~ 2 characters distance.
7. Write the memory by pressing MUTING then ENTER .



⇔: CRT Usable Area.

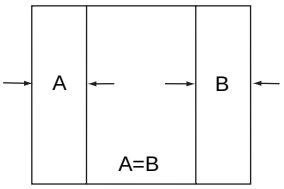
OSD POSITION ADJUSTMENT (DISP)

1. Input a color bar signal.
2. Set to Service adjustment Mode.
3. Select DISP with 1 and 4.
4. Adjust with 3 and 6 for the bar center.
5. Write into the memory by pressing MUTING then ENTER .



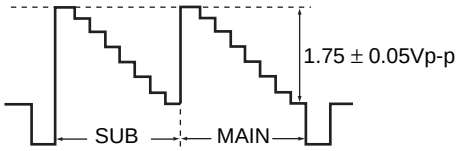
H-CENTERING ADJUSTMENT

1. Input a monoscope signal.
2. Set to Standard Mode.
3. Push the "TEST + JUMP".
4. Set adjust the G2 VR that the raster appear.
5. Set H-SIZE minimum.
6. Adjust H-Center SW (S501) so that the margin width (no raster) of left side and right side no raster area's width is almost the same.

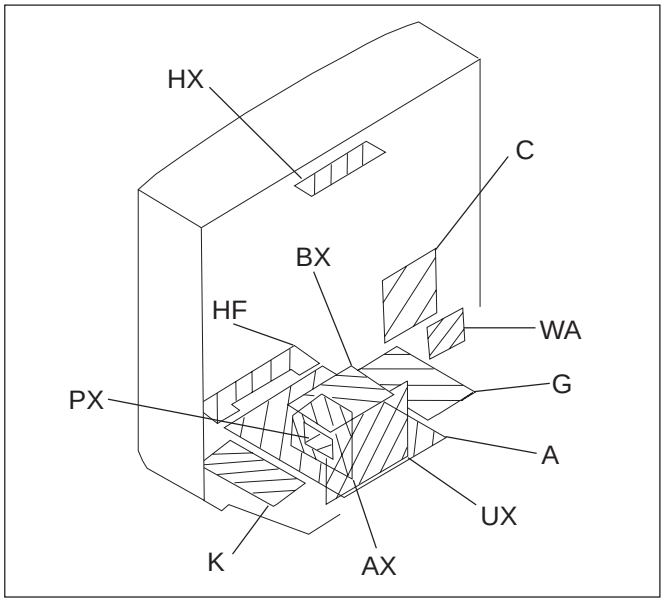


P&P SCON ADJUSTMENT

1. Input a color-bar signal signal.
2. Set to service adjustment mode and set to GON and BON to "0".
3. Set P&P mode.
4. Connect an pscilloscope CN 1103 (6 pin) of A board.
5. Select MSCO (main) ISCO (sub) with [1] and [4].
6. Adjust with [3] and [6] as below.



6-3. CIRCUIT BOARDS LOCATION



6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
  K =1000 , M =1000k
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch : 5mm
  Rating electrical power : $^1/_4$W

- $^1/_4$W in resistance, $^1/_{10}$W and $^1/_8$W in chip resistance.
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪ , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved. (Refer to R530 and R531 adjustment on Page 19.)
- When replacing the part in below table, be sure to perform the related adjustment.
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10M digital multimeter .
- Voltages are DC with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.

Part replaced(◪)	Adjustment(⋈)
IC351,IC501,D519,D520,D521 C531,C532,R387,R529,R530,R531, R532,R533,R550,T503.....A BOARD IC643,R661.....G BOARD	R530,R531

S : Measurement impossibillity.

- : B+line.
- V : B-line.
  (Actual measured value may be different).
- : signal path. (RF)
- Circled numbers are waveform references.

Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RW	NONFLAMMABLE WIREWOUND
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

The symbol display is on the component side.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

The symbol indicate fast operating fuse.
Replace only with fuse of same rating as marked.

Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Le symbole indique une fusible a action rapide. Doit etre remplacee par une fusible de meme yaleur, comme maque.

SIRS IN
S-LINK OUT
J602
SIRS OUT
S-LINK IN1
J603
SIRS OUT
S-LINK IN3
J604
SIRS OUT
S-LINK IN4
J605
J231
VIDEO1 IN
J232
VIDEO3 IN
J233
VARIABLE OR
FIX OUT
J234
MONITOR
OUT
J235
TV OUT
J236
DVD
VIDEO4
IC261
(A/V SWITCH)
VIDEO 1 IN
VIDEO 3 IN
VIDEO 2 IN
MAIN TV IN
DVD IN
CN262
TO A BOARD
CN270
CN271
CN264
BUFFER Q265
BUFFER Q262
BUFFER Q266
BUFFER Q264
BUFFER Q212
BUFFER Q208
BUFFER Q209
AMP Q210,211
AMP Q202,205
AMP Q203,206
BUFFER Q263
BUFFER Q268
SWITCH Q235
SWITCH Q236
SWITCH Q231
SWITCH Q246
SWITCH Q233
SWITCH Q234
SWITCH Q240
SWITCH Q241
SWITCH Q242
BUFFER Q237
BUFFER Q238
BUFFER Q239
BUFFER Q243
BUFFER Q244
BUFFER Q245
BUFFER Q267
IC1402
AUDIO AMP
(VAR/FIX)
IC1051
D/A CONVERTER
OFF MUTE Q1051
CN261
CN3702
CN3701
CN102
CN1401
CN5001
CN1402
CN5002
CN1643
CN642
CN641
CN5003
CN1462
TO A BOARD
CN1461
TO A BOARD
CN101
TO A BOARD
CN1101
TO A BOARD
MAIN TUNER
TU102
IC3707
3D COMB
FILTER
IC3705
CLOCK GEN
X3701
14.31818MHz
VIBRATOR
IC3702
5V REG
IC3703
3.3V REG
IC3708
1M FIELD MEM
IC3709
2M FIELD MEM
FL3706
FL3705
FL3704
FL3702
BUFFER Q3731,3732,3728
BUFFER Q3724,3725,3729
BUFFER Q3701,3703,3709
BUFFER Q3708
BUFFER Q3702
BUFFER Q3707
BUFFER Q3719
KILLER SW1 Q3733
SWITCH Q106
SYNC SEP Q105
TU101
SUB TUNER
IC1902
SIRCS I/O
SWITCH Q1902,1903,1918
IC1901
D/A CONVERTER
S OUT
BUFFER Q103
BUFFER Q104
ANT
SW
UPV
CONV
SUB
IC5201
AUDIO
IC5202
RESET
IC2401
AUDIO
PROCESSOR
IC1402
AUDIO AMP
MUTE Q1461
OFF MUTE Q1464,1472
OFF MUTE Q1463
AUDIO-RECT D641
+B RECT D643
IC641
9V REG
IC650
12V REG
IC622
5V REG
BACK UP Q646
IC643
CONTROL IC
CONVERTER Q621
PROTECT Q622
SW Q648
RESET Q647
SOFT SW Q645
DGC SW Q644
IC601
CONVERTER
AC RECT D602
T605 PIT
T601 LFT
T602 LFT
T603 PWT
T621 SRT
BX (DIGITAL COMB FILTER)
AX (2ND-TUNER / S-LINK)
K (AUDIO AMP TRUSURROUND)
UX (SRS, AV-SW, AV-TERMINAL, AUDIO CONTROL)
G (POWER SUPPLY)
B-SV6900<XBR200>-BLOCK-2..

TU102
MAIN TUNER
DET OUT2
L OUT
R OUT
AL
AR
TO CN1103
ANT SW
F MONO
MODE
SAP IND
ST IND
DET OUT
AFT OUT
RF AGC
DATA
CLOCK
MUTE
30V
H SEP Q001
AGC MUTE Q1103
IC001 (1/2)
TUNING-MICON
O-MONO
O-SAP
I-DUAL
I-STEREO
I-SYNC
I-AFT
O-AGCMT
O-DAT
O-CLK
I-POWERON
I-KEYIN
CN1101
30V
S DAT
S CLK
2-AFT
2-MUTE
M-BUS POW
9V
STBY 5V
E
2H SYNC
ANT.SW2
ANT.SW1
RM CN
I-2AFT
O-2MUTE
I-MPOW
O-OSC
I-OSC
RESET SW Q017
I-RESET
I-2HSYNC
O-2ANTAU
O-ANTAUX
O-SIRCS
IO-SCLKN
IO-SDAT
BUFFER Q005
O-MUTE
MUTE
CN1002
POWER ON
E
KEY
CN2002
S2007
S2001 ~ S2006
J232
HX (FUNCTION SW)
CN1001
SIRCS
E
TIMER LED
STBY 5V
ST LED
CN2001
SIRCS DET IC2001
D2002 TIMER LED
D2003 STEREO LED
HF (FRONT A/V) (IR DETECT)
CN1232
CN1231
FRONT C
FRONT Y
FRONT-S.SW
FRONT V
FRONT L
FRONT R
E
CN270
TV-V
TV-L
TV-R
TO/FROM
UX BOARD CN262
MAIN-C
MAIN Y
DVD B-Y
DVD R-Y
DVD Y
SUB-V
BUFFER Q365
DL351
AMP Q366-367
BUFFER Q368
X353 3.58MHz
X354 503KHz
IC351
Y/C JUNGLE
C IN
XTAL
CERA
EY IN
ERY IN
EBY IN
Y IN
SCL
SDA
BGP
EYS
AFC F/L
G OUT
B OUT
IK IN
VM
R OUT
IC352
Y U V SW
Y OUT
RY OUT
BY OUT
DVD B-Y
DVD R-Y
TV OUT
DVD Y
SUB-V
CLAMP
DLYSW
YSW
COL
HUE
IC353
SHP
Y
Y OUT
SCL
SDA
SCP
BUFF Q351,369
BUFF, AMP Q361-364
BUFF, AMP Q359,360,370,1351-1354
MAIN Y SW
IC1001
D/A CONV
NS CORR
COL
HUE
FULL DVD
INV Q1001
SW Q015
9V
P B-Y
P R-Y
PY
DVD SW
DVD SW2
SCL
SDA
IC3304
P&P CONTROLLER
MV
MU
MY
MVSYNC
IC3303
2M
V-RAM
MP HSYNC
DP HSYNC
MAIN VP
DP VSYNC
P YS
DFB
P B-Y
DU
P R-Y
DV
PY
DY
DVD SW2
SCL
SDA
SV
SU
SY
SPHSYNC
SVSYNC
BUFFER Q3303
BUFFER Q3301
BUFFER Q3302
BUFFER Q3346
BUFFER Q3311
BUFFER Q3320
BUFFER Q3318
BUFFER Q3319
BUFFER Q3325
BUFFER Q3326
BUFFER Q3327
BUFFER Q3347
IC3302
MAIN CHROMA DEC.
C IN
Y IN
V SYNC
H SYNC
VTIM
CERA
X NTSC
FSC
SCL
SDA
RV OUT
RU OUT
RY OUT
SYNC SEP Q3305
X3301 503KHz
X3302 3.58MHz
BUFFER Q3343
IC3301
YUV SW
V OUT
U OUT
Y IN
U IN
V IN
RY IN
RU IN
DY IN
DV IN
DU IN
IC3308
YUV SW
IC3309
SUB CHROMA DEC.
SCP
CP IN
VTIM
BUFFER Q3306
BUFFER Q3307
MUTE Q3308,3310
X3303 503KHz
X3304 3.58MHz
BUFF Q3451
IC3311
V-SW
IN1
IN2
OUT
SW
IC3310
HP GEN
VIDEO
X-TAL
HP
CM3301
COMB FILTER
C OUT
Y OUT
V IN
2CH BLK
BUFF Q3333
MUTE Q3339,3342
IC3305
5V REG
5V
9V
CN3001
CN3002
CN3301
CN3302
MAIN C
MAIN Y
DVD Y
DVD R-Y
DVD B-Y
SUB V
E
PX (MULTI PIP)
CN271
TO/FROM
UX BOARD CN264
INV Q003
I-HP
I-VP
I-VIN
O-R
O-G
O-B
O-ZCHBLK
O-CHBLK
O-I
O-OSDBLK
O-DSPYM
O-ALLYM
BUFF Q004
BUFF Q002
BUFF SW Q010,013
BUFF SW Q011,014
BUFF SW Q012,015
SYNC SEP Q356
R IN
G IN
B IN
YS
YM
VS IN
HS IN
O HP SEL
BUFF Q358
BUFF Q304
BUFF Q305
BUFF Q306
BUFF Q357
BUFF Q354
BUFF Q1761
PIN OUT Q511,512
PROT Q503,504
IC501
PIN CONTROL
ABL IN
ABL F/L
AFC PIN
E/W DRIVE
CN351
TO A BOARD
(TSO3 FBT)
CN1765
CN1761
IC1761
VIDEO AMP
IC1762
VIDEO AMP
IC1763
VIDEO AMP
V1
VO
VOF
IK
FV
(FROM FBT)
CRT
HV
(FROM FBT)
(CHASSIS)
CN1763
CN1764
C (RGB OUT)
CN1941
VM OUT
12V
+B
N/S CORR
N/S MUTE
E
H-PULSE
V-PULSE
V-DRIVE
DF H-DRIVE
E
TO CN1641
PIN (12) DGC
CN3942
CN1942
SDA
SCL
E
IN
PARA2
PARA1
IC964
DOP DR
IC963
H-SAW
IC962
DF COMP
IC961
DY-CONV
IC981
N/S DRIVE
Q981
VM AMP Q943-945
VM OUT Q966,968
VM DRIVE Q946,947
DQP AMP Q969
DQP BUFF Q967
QP H-OUT Q965
DF BUFF Q1961
BUFF Q961
WA (VELOCITY MOD,Q.P ROTATION)
N/S COIL
CN941
CN961
VM
Q.P -
Q.P +
E
NECK ASSY
V DRIVE+
V DRIVE-
IC561
V OUT
DRIVE+
DRIVE-
OUT
Q561,562
PROT
TO T504
DFT PIN (1)
H DRIVE Q501
H OUT Q502
T501
T502
CN501
VDY (+)
VDY (-)
HDY (+)
HDY (-)
TO DY
T503
FBT
T504
HLT
HV (TO CRT)
FV (TO C BOARD
G2 (TO C BOARD
CN1765
+200V
+B
-15V
+15V
CN903
200V
E
H
TO CN1941
PIN (7) NS MUTE
CN1641
DGC
PWR ON
+B
9V
12V
STBY 5V
GND
TO G BOARD
CN6
CN1461
SP MUTE
SDAT
SCLK
E
TO K BOARD
CN50
IC002
EEPROM
SCL
SDA
IC001 (2/2)
TUNING-MICON
O-DGC
O-RELAY
O-SPKMT
IO-BCLKN
IO-BDAT
I-BINT
REF
+5V
5V REG Q1102
9V
IC565
9V REG
+12V
+9V
MICON,YCJ,TUNER,
PIN MOD,
V DEF,H DEF
B-SV6900~XBR200~BLOCK-1/2..
EDGE CONNECTOR
FOR CHECK
B INT
B DAT
R CLK
COM/CB
ABL
R
L
FI OUT
B OUT
AR
AL
R
B

A BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q001	4.9	0.7	4.8
Q002	4.9	9.5	4.2
Q003	0	3.9	GND
Q004	0.7	GND	1.2
Q005	0	4.8	0
Q010	0	9.5	0
Q011	0	9.5	0
Q012	0	9.5	0
Q013	0	0	GND
Q014	0	0	GND
Q015	0	0	GND
Q016	5.8	9.5	5.2
Q017	4.2	4.8	4.8
Q304	1.7	GND	2.4
Q305	1.7	GND	2.3
Q306	1.7	GND	2.3
Q351	6.7	9.2	6
Q354	0.2	GND	-0.3
Q356	5.1	GND	5.7
Q357	3.7	9.5	3.1
Q358	2.2	9.1	2.3
Q359	1.1	GND	1.9
Q360	O.2	11.6	0.7
Q361	7.6	11.6	6.9
Q362	3.2	10.8	2.6
Q363	10.8	5	11.4
Q364	5	GND	5.6
Q365	5	9.2	4.4
Q366	2.5	8.5	1.9
Q367	8.5	3.4	9.1
Q368	3.4	GND	4
Q369	3.6	9.2	2.9
Q370	1.9	11.6	1.4
Q501	-0.9	97	GND
Q502	0	134	GND
Q503	0	8.3	GND
Q504	-0.9	0	GND
Q507	0.7	0	GND
Q511	-14	-11	-14.2
Q512	-14.4	19.8	-14.2
Q561	0	3	GND
Q562	-0.2	0	GND
Q1001	0.2	2.2	GND
Q1102	5.7	8.9	5.1
Q1103	0	7.1	GND
Q1351	0.6	9.2	0.4
Q1352	-1.1	10.4	GND
Q1353	11.6	0.6	11.6
Q1354	-0.2	0	GND

All voltages are in V.

K BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1461	0.7	0	GND
Q1462	0	11.5	GND
Q1463	0	0	GND
Q1464	0	0	GND

All voltages are in V.

C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1761	4.1	0.1	3.5

All voltages are in V.

PX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3301	2.9	GND	3.6
Q3302	3.3	GND	3.9
Q3303	2.9	GND	3.6
Q3305	5.8	GND	6.4
Q3306	5	GND	5.7
Q3307	5	GND	5.7
Q3308	0	5.8	GND
Q3309	0	5.8	GND
Q3310	0	9	0
Q3311	0	9	0
Q3318	1.3	GND	2
Q3319	0.5	GND	1.2
Q3320	1.3	GND	2
Q3325	3	GND	3.7
Q3326	2.9	GND	3.6
Q3327	2.9	GND	3.6
Q3330	4.9	GND	5.4
Q3333	5	GND	5.6
Q3339	0	5.7	GND
Q3342	0	9	0
Q3343	1.6	GND	2.3
Q3344	0.8	1	GND
Q3345	-0.5	1.4	GND
Q3346	0.8	9	0.6
Q3347	0.8	9	0.6
Q3451	5.1	8.2	6.6

All voltages are in V.

UX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q202	2.8	7.8	2.2
Q203	2.6	7.8	2.2
Q205	7.8	4	8.3
Q206	7.8	4	8.3
Q208	4.4	8.8	3.5
Q209	4	8.8	3.5
Q210	2.8	7.8	2.2
Q211	7.8	4.1	8.4
Q212	4.1	8.8	3.4
Q231	-0.7	5	GND
Q233	-1.1	0	GND
Q234	-1.1	0	GND
Q235	0	0	GND
Q236	0	0	GND
Q237	4.3	GND	5.1
Q238	4.5	GND	5.1
Q239	4.5	GND	5.1
Q240	-0.2	5.1	GND
Q241	-0.3	5.1	GND
Q242	-0.3	5.1	GND
Q243	4.4	GND	5.1
Q244	4.4	GND	5.1
Q245	4.4	GND	5.1
Q246	0	5.1	GND
Q262	4.4	GND	5
Q263	4.3	GND	5
Q264	4.4	GND	5
Q265	4.7	8.8	4.1
Q266	4.4	GND	5
Q267	0.2	GND	0.9
Q268	8.1	GND	8.8
Q1051	8.8	-1.1	8.7

All voltages are in V.

WA BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q943	3.1	11.6	2.4
Q944	2.5	11.6	1.9
Q945	2.5	8.1	1.9
Q946	134.3	67.2	134.9
Q947	0.9	67.2	0.4
Q961	0.4	0.7	GND
Q962	0.5	GND	1.1
Q963	6.1	GND	6.2
Q966	8.1	GND	8.4
Q967	6.1	6	6.8
Q968	8.7	11.6	8.3
Q969	5.5	11.3	6
Q981	0	4.7	GND
Q1961	0	0	11.6
	D	**G**	**S**
Q965	0.7	6.2	GND

All voltages are in V.

BX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3701	1.5	GND	2.2
Q3702	0.1	GND	8.8
Q3703	2.3	8.6	1.7
Q3707	4.2	8.6	3.6
Q3708	0.5	GND	1.2
Q3709	1	GND	1.7
Q3719	3	5	2.3
Q3724	2.4	7.7	1.8
Q3725	7.7	4.5	8.4
Q3728	5.1	GND	5.8
Q3729	4.5	GND	5.2
Q3731	2.4	7.7	1.7
Q3732	7.7	5.1	8.4
Q3733	0	0.1	GND
Q3734	0.1	0	GND

All voltages are in V.

AX BOARD TRANSISTOR VOLTAGE LIST

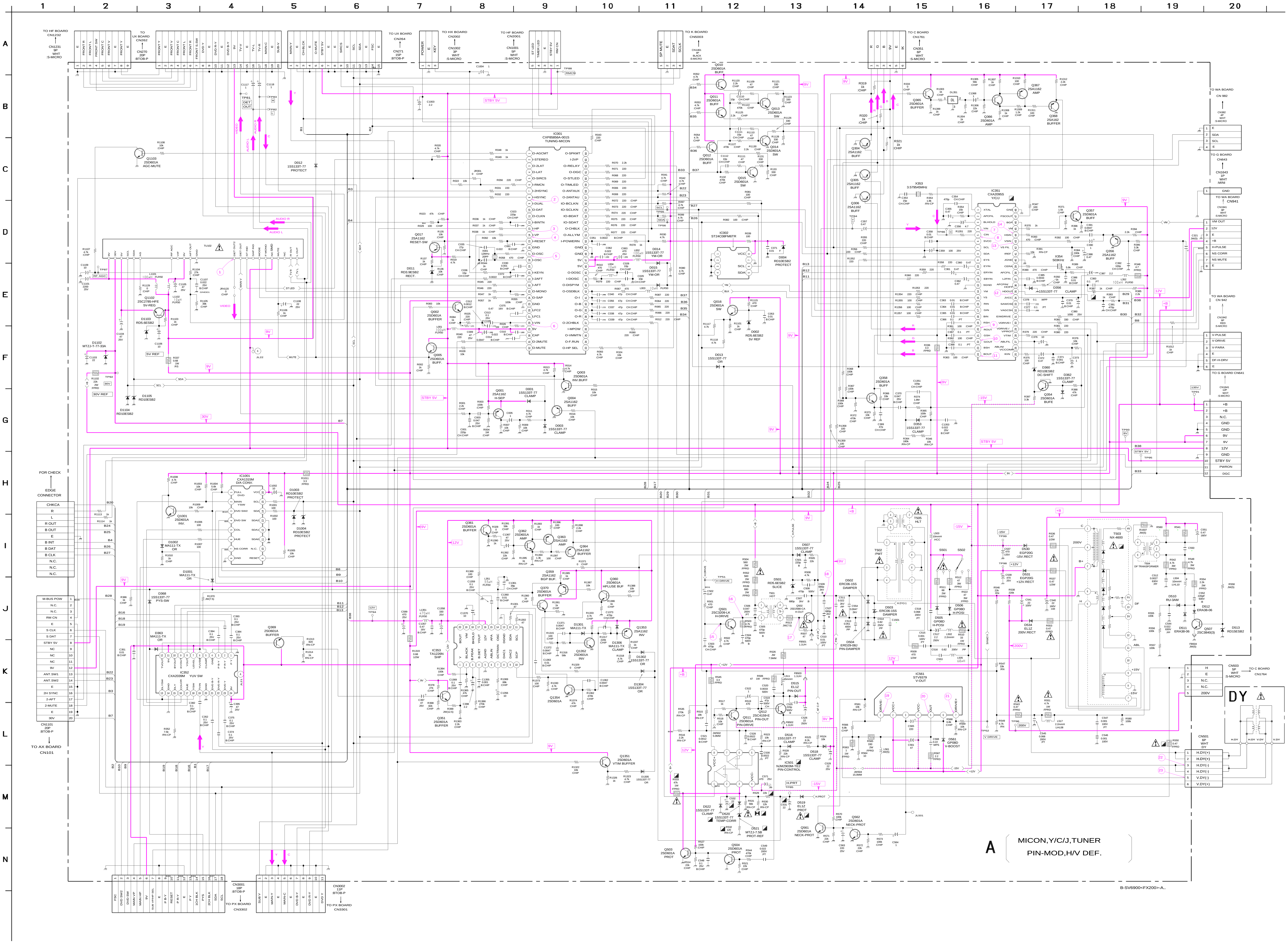
	B	C	E
Q101	5.8	8.7	5.1
Q103	4.1	4.7	4.8
Q104	4.8	0	4.8
Q105	4.8	1	4.8
Q106	4.7	8.7	4
Q1902	4.8	0	0
Q1903	4.8	0	0
Q1918	4.8	0	0

All voltages are in V.

G BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q622	0.3	1.4	GND
Q623	0.7	0	GND
Q624	12.7	0	12.4
Q644	0	11.9	GND
Q645	12.3	GND	9.2
Q646	5.7	6.3	6.3
Q647	0	12.4	GND
Q648	0.6	0.1	GND
Q649	12	0	12
Q650	0	2.4	0
Q651	135	0	135
Q652	3.6	0	3.6
Q653	0	3.6	GND
	D	**G**	**S**
Q621	151	1.4	0

All voltages are in V.


A
MICON,Y/C/J,TUNER
PIN-MOD,H/V DEF.
TO HF BOARD CN1232
CN1231 9P WHT :S-MICRO
TO UX BOARD CN262
CN270 20P :BTOB-P
TO UX BOARD CN264
CN271 15P :BTOB-P
TO HX BOARD CN2002
CN1002 3P WHT :S-MICRO
TO HF BOARD CN2001
CN1001 5P WHT :S-MICRO
TO K BOARD CN5003
CN1461 4P BLACK :S-MICRO
TO C BOARD CN1761
CN351 6P WHT :S-MICRO
TO WA BOARD CN 982
CN382 4P WHT :S-MICRO
TO G BOARD CN643
CN1643 1P WHT :MINI
TO WA BOARD CN941
CN1941 8P WHT :S-MICRO
TO WA BOARD CN 942
CN1942 6P RED :S-MICRO
TO G BOARD CN641
CN1641 12P WHT :S-MICRO
CN503 5P WHT :S-MICRO
TO C BOARD CN1764
CN501 6P WHT :DY
DY
FOR CHECK
EDGE CONNECTOR
CN1101 20P :BTOB-P
TO AX BOARD CN101
CN3001 18P :BTOB-P
TO PX BOARD CN3302
CN3002 11P :BTOB-P
TO PX BOARD CN3301
TU102
IC001 CXP85856A-001S TUNING-MICON
IC002 ST24C08FM6TR
IC351 CXA2095S Y/C/J
IC1001 CXA1315M D/A CONV.
IC352 CXA2039M YUV SW
IC353 TA1226N SHP
IC501 NJM2903M-TE2 PIN-CONTROL
IC561 STV9379 V-OUT
T501 :HDT
T502 :PMT
T503 NX-4600
T504 DF TRANSFORMER
T505 HLT
Q1103 2SD601A AGC-MUTE
Q1102 2SC2785-HFE 5V-REG
Q017 2SA1162 RESET-SW
Q002 2SD601A BUFFER
Q005 2SD601A BUFF.
Q001 2SA1162 H-SEP
Q003 2SD601A INV.BUFF
Q004 2SA1162 BUFF
Q010 2SD601A BUFF
Q011 2SD601A BUFF
Q012 2SD601A BUFF
Q013 2SD601A SW
Q014 2SD601A SW
Q015 2SD601A SW
Q016 2SD601A SW
Q304 2SA1162 BUFF
Q305 2SA1162 BUFF
Q306 2SA1162 BUFF
Q365 2SD601A BUFFER
Q366 2SD601A AMP
Q367 2SA1162 AMP
Q368 2SA162 BUFFER
Q357 2SD601A BUFF
Q356 2SA1162 BUFF
Q354 2SD601A BUFE
Q358 2SD601A BUFF
Q1001 2SD601A INV.
Q369 2SD601A BUFFER
Q351 2SD601A BUFFER
Q361 2SD601A BUFFER
Q362 2SD601A AMP
Q363 2SA1162 AMP
Q364 2SA1162 BUFFER
Q359 2SA1162 BGP BUF.
Q370 2SD601A BUFFER
Q360 2SD601A HPLUSE BUF
Q1352 2SD601A INV
Q1353 2SA1162 INV
Q1354 2SD601A
Q1351 2SD601A VTIM BUFFER
Q501 2SC3209-LK H-DRIVE
Q502 2SD2580-CA H-OUT
Q511 2SD601A PIN-DRIVE
Q512 2SC4159-E PIN-OUT
Q503 2SD601A PROT
Q504 2SD601A PROT
Q561 2SD601A NECK-PROT
Q562 2SD601A NECK-PROT
Q507 2SC3840(3)
D501 RD5.6ESB2 SLICE
D502 ERC06-15S DAMPER
D503 ERC06-15S DAMPER
D504 ERD29-08J PIN-DAMPER
D505 GP08D H-POSI
D506 GP08D H-POSI
D507 1SS133T-77 CLAMP
D510 RU-3AM
D511 ERA38-06
D512 ERA38-06
D513 RD15ESB2
D530 EGP20G -15V.RECT
D531 EGP20G +12V.RECT
D534 EL1Z 200V.RECT
D561 GP08D V-BOOST
S501
S502
9V
12V
30V
STBY 5V
+B
-15V
200V
VIDEO
AUDIO R
AUDIO L
Y
C
R
G
B
B-SV6900<FX200>-A..

A BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q001	4.9	0.7	4.8
Q002	4.9	9.5	4.2
Q003	0	3.9	GND
Q004	0.7	GND	1.2
Q005	0	4.8	0
Q010	0	9.5	0
Q011	0	9.5	0
Q012	0	9.5	0
Q013	0	0	GND
Q014	0	0	GND
Q015	0	0	GND
Q016	5.8	9.5	5.2
Q017	4.2	4.8	4.8
Q304	1.7	GND	2.4
Q305	1.7	GND	2.3
Q306	1.7	GND	2.3
Q351	6.7	9.2	6
Q354	0.2	GND	-0.3
Q356	5.1	GND	5.7
Q357	3.7	9.5	3.1
Q358	2.2	9.1	2.3
Q359	1.1	GND	1.9
Q360	O.2	11.6	0.7
Q361	7.6	11.6	6.9
Q362	3.2	10.8	2.6
Q363	10.8	5	11.4
Q364	5	GND	5.6
Q365	5	9.2	4.4
Q366	2.5	8.5	1.9
Q367	8.5	3.4	9.1
Q368	3.4	GND	4
Q369	3.6	9.2	2.9
Q370	1.9	11.6	1.4
Q501	-0.9	97	GND
Q502	0	134	GND
Q503	0	8.3	GND
Q504	-0.9	0	GND
Q507	0.7	0	GND
Q511	-14	-11	-14.2
Q512	-14.4	19.8	-14.2
Q561	0	3	GND
Q562	-0.2	0	GND
Q1001	0.2	2.2	GND
Q1102	5.7	8.9	5.1
Q1103	0	7.1	GND
Q1351	0.6	9.2	0.4
Q1352	-1.1	10.4	GND
Q1353	11.6	0.6	11.6
Q1354	-0.2	0	GND

All voltages are in V.

K BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1461	0.7	0	GND
Q1462	0	11.5	GND
Q1463	0	0	GND
Q1464	0	0	GND

All voltages are in V.

C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1761	4.1	0.1	3.5

All voltages are in V.

PX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3301	2.9	GND	3.6
Q3302	3.3	GND	3.9
Q3303	2.9	GND	3.6
Q3305	5.8	GND	6.4
Q3306	5	GND	5.7
Q3307	5	GND	5.7
Q3308	0	5.8	GND
Q3309	0	5.8	GND
Q3310	0	9	0
Q3311	0	9	0
Q3318	1.3	GND	2
Q3319	0.5	GND	1.2
Q3320	1.3	GND	2
Q3325	3	GND	3.7
Q3326	2.9	GND	3.6
Q3327	2.9	GND	3.6
Q3330	4.9	GND	5.4
Q3333	5	GND	5.6
Q3339	0	5.7	GND
Q3342	0	9	0
Q3343	1.6	GND	2.3
Q3344	0.8	1	GND
Q3345	-0.5	1.4	GND
Q3346	0.8	9	0.6
Q3347	0.8	9	0.6
Q3451	5.1	8.2	6.6

All voltages are in V.

UX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q202	2.8	7.8	2.2
Q203	2.6	7.8	2.2
Q205	7.8	4	8.3
Q206	7.8	4	8.3
Q208	4.4	8.8	3.5
Q209	4	8.8	3.5
Q210	2.8	7.8	2.2
Q211	7.8	4.1	8.4
Q212	4.1	8.8	3.4
Q231	-0.7	5	GND
Q233	-1.1	0	GND
Q234	-1.1	0	GND
Q235	0	0	GND
Q236	0	0	GND
Q237	4.3	GND	5.1
Q238	4.5	GND	5.1
Q239	4.5	GND	5.1
Q240	-0.2	5.1	GND
Q241	-0.3	5.1	GND
Q242	-0.3	5.1	GND
Q243	4.4	GND	5.1
Q244	4.4	GND	5.1
Q245	4.4	GND	5.1
Q246	0	5.1	GND
Q262	4.4	GND	5
Q263	4.3	GND	5
Q264	4.4	GND	5
Q265	4.7	8.8	4.1
Q266	4.4	GND	5
Q267	0.2	GND	0.9
Q268	8.1	GND	8.8
Q1051	8.8	-1.1	8.7

All voltages are in V.

WA BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q943	3.1	11.6	2.4
Q944	2.5	11.6	1.9
Q945	2.5	8.1	1.9
Q946	134.3	67.2	134.9
Q947	0.9	67.2	0.4
Q961	0.4	0.7	GND
Q962	0.5	GND	1.1
Q963	6.1	GND	6.2
Q966	8.1	GND	8.4
Q967	6.1	6	6.8
Q968	8.7	11.6	8.3
Q969	5.5	11.3	6
Q981	0	4.7	GND
Q1961	0	0	11.6
	D	**G**	**S**
Q965	0.7	6.2	GND

All voltages are in V.

BX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3701	1.5	GND	2.2
Q3702	0.1	GND	8.8
Q3703	2.3	8.6	1.7
Q3707	4.2	8.6	3.6
Q3708	0.5	GND	1.2
Q3709	1	GND	1.7
Q3719	3	5	2.3
Q3724	2.4	7.7	1.8
Q3725	7.7	4.5	8.4
Q3728	5.1	GND	5.8
Q3729	4.5	GND	5.2
Q3731	2.4	7.7	1.7
Q3732	7.7	5.1	8.4
Q3733	0	0.1	GND
Q3734	0.1	0	GND

All voltages are in V.

AX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q101	5.8	8.7	5.1
Q103	4.1	4.7	4.8
Q104	4.8	0	4.8
Q105	4.8	1	4.8
Q106	4.7	8.7	4
Q1902	4.8	0	0
Q1903	4.8	0	0
Q1918	4.8	0	0

All voltages are in V.

G BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q622	0.3	1.4	GND
Q623	0.7	0	GND
Q624	12.7	0	12.4
Q644	0	11.9	GND
Q645	12.3	GND	9.2
Q646	5.7	6.3	6.3
Q647	0	12.4	GND
Q648	0.6	0.1	GND
Q649	12	0	12
Q650	0	2.4	0
Q651	135	0	135
Q652	3.6	0	3.6
Q653	0	3.6	GND
	D	**G**	**S**
Q621	151	1.4	0

All voltages are in V.

A BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q001	4.9	0.7	4.8
Q002	4.9	9.5	4.2
Q003	0	3.9	GND
Q004	0.7	GND	1.2
Q005	0	4.8	0
Q010	0	9.5	0
Q011	0	9.5	0
Q012	0	9.5	0
Q013	0	0	GND
Q014	0	0	GND
Q015	0	0	GND
Q016	5.8	9.5	5.2
Q017	4.2	4.8	4.8
Q304	1.7	GND	2.4
Q305	1.7	GND	2.3
Q306	1.7	GND	2.3
Q351	6.7	9.2	6
Q354	0.2	GND	-0.3
Q356	5.1	GND	5.7
Q357	3.7	9.5	3.1
Q358	2.2	9.1	2.3
Q359	1.1	GND	1.9
Q360	O.2	11.6	0.7
Q361	7.6	11.6	6.9
Q362	3.2	10.8	2.6
Q363	10.8	5	11.4
Q364	5	GND	5.6
Q365	5	9.2	4.4
Q366	2.5	8.5	1.9
Q367	8.5	3.4	9.1
Q368	3.4	GND	4
Q369	3.6	9.2	2.9
Q370	1.9	11.6	1.4
Q501	-0.9	97	GND
Q502	0	134	GND
Q503	0	8.3	GND
Q504	-0.9	0	GND
Q507	0.7	0	GND
Q511	-14	-11	-14.2
Q512	-14.4	19.8	-14.2
Q561	0	3	GND
Q562	-0.2	0	GND
Q1001	0.2	2.2	GND
Q1102	5.7	8.9	5.1
Q1103	0	7.1	GND
Q1351	0.6	9.2	0.4
Q1352	-1.1	10.4	GND
Q1353	11.6	0.6	11.6
Q1354	-0.2	0	GND

All voltages are in V.

K BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1461	0.7	0	GND
Q1462	0	11.5	GND
Q1463	0	0	GND
Q1464	0	0	GND

All voltages are in V.

C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1761	4.1	0.1	3.5

All voltages are in V.

PX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3301	2.9	GND	3.6
Q3302	3.3	GND	3.9
Q3303	2.9	GND	3.6
Q3305	5.8	GND	6.4
Q3306	5	GND	5.7
Q3307	5	GND	5.7
Q3308	0	5.8	GND
Q3309	0	5.8	GND
Q3310	0	9	0
Q3311	0	9	0
Q3318	1.3	GND	2
Q3319	0.5	GND	1.2
Q3320	1.3	GND	2
Q3325	3	GND	3.7
Q3326	2.9	GND	3.6
Q3327	2.9	GND	3.6
Q3330	4.9	GND	5.4
Q3333	5	GND	5.6
Q3339	0	5.7	GND
Q3342	0	9	0
Q3343	1.6	GND	2.3
Q3344	0.8	1	GND
Q3345	-0.5	1.4	GND
Q3346	0.8	9	0.6
Q3347	0.8	9	0.6
Q3451	5.1	8.2	6.6

All voltages are in V.

UX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q202	2.8	7.8	2.2
Q203	2.6	7.8	2.2
Q205	7.8	4	8.3
Q206	7.8	4	8.3
Q208	4.4	8.8	3.5
Q209	4	8.8	3.5
Q210	2.8	7.8	2.2
Q211	7.8	4.1	8.4
Q212	4.1	8.8	3.4
Q231	-0.7	5	GND
Q233	-1.1	0	GND
Q234	-1.1	0	GND
Q235	0	0	GND
Q236	0	0	GND
Q237	4.3	GND	5.1
Q238	4.5	GND	5.1
Q239	4.5	GND	5.1
Q240	-0.2	5.1	GND
Q241	-0.3	5.1	GND
Q242	-0.3	5.1	GND
Q243	4.4	GND	5.1
Q244	4.4	GND	5.1
Q245	4.4	GND	5.1
Q246	0	5.1	GND
Q262	4.4	GND	5
Q263	4.3	GND	5
Q264	4.4	GND	5
Q265	4.7	8.8	4.1
Q266	4.4	GND	5
Q267	0.2	GND	0.9
Q268	8.1	GND	8.8
Q1051	8.8	-1.1	8.7

All voltages are in V.

WA BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q943	3.1	11.6	2.4
Q944	2.5	11.6	1.9
Q945	2.5	8.1	1.9
Q946	134.3	67.2	134.9
Q947	0.9	67.2	0.4
Q961	0.4	0.7	GND
Q962	0.5	GND	1.1
Q963	6.1	GND	6.2
Q966	8.1	GND	8.4
Q967	6.1	6	6.8
Q968	8.7	11.6	8.3
Q969	5.5	11.3	6
Q981	0	4.7	GND
Q1961	0	0	11.6
	D	**G**	**S**
Q965	0.7	6.2	GND

All voltages are in V.

BX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q3701	1.5	GND	2.2
Q3702	0.1	GND	8.8
Q3703	2.3	8.6	1.7
Q3707	4.2	8.6	3.6
Q3708	0.5	GND	1.2
Q3709	1	GND	1.7
Q3719	3	5	2.3
Q3724	2.4	7.7	1.8
Q3725	7.7	4.5	8.4
Q3728	5.1	GND	5.8
Q3729	4.5	GND	5.2
Q3731	2.4	7.7	1.7
Q3732	7.7	5.1	8.4
Q3733	0	0.1	GND
Q3734	0.1	0	GND

All voltages are in V.

AX BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q101	5.8	8.7	5.1
Q103	4.1	4.7	4.8
Q104	4.8	0	4.8
Q105	4.8	1	4.8
Q106	4.7	8.7	4
Q1902	4.8	0	0
Q1903	4.8	0	0
Q1918	4.8	0	0

All voltages are in V.

G BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q622	0.3	1.4	GND
Q623	0.7	0	GND
Q624	12.7	0	12.4
Q644	0	11.9	GND
Q645	12.3	GND	9.2
Q646	5.7	6.3	6.3
Q647	0	12.4	GND
Q648	0.6	0.1	GND
Q649	12	0	12
Q650	0	2.4	0
Q651	135	0	135
Q652	3.6	0	3.6
Q653	0	3.6	GND
	D	**G**	**S**
Q621	151	1.4	0

All voltages are in V.

A BOARD IC VOLTAGE LIST

IC001		4	GND	13	0.1
pin	volt	5	4.1	14	GND
1	0	6	4	15	2.5
2	4.8	7	GND	16	5.5
3	NC	8	4.8	17	4.6
4	NC	IC351		18	0.1
5	NC	pin	volt	19	6.3
6	4.7	1	2.1	20	GND
7	0.1	2	5.6	21	5.9
8	0.1	3	4.1	22	5.9
9	NC	4	4.6	23	5.9
10	NC	5	4	24	9.2
11	NC	6	9.1	IC353	
12	4.8	7	4	pin	volt
13	3.9	8	4	1	4.5
14	1.2	9	0.3	2	3.7
15	4.8	10	6.6	3	4.3
16	GND	11	6.3	4	4.5
17	2.3	12	6.3	5	GND
18	*	13	GND	6	NC
19	0	14	0	7	4.5
20	4.8	15	0	8	NC
21	1.9	16	5.1	9	NC
22	2.2	17	5.1	10	0.9
23	0	18	5.1	11	4
24	0	19	4.8	12	4
25	GND	20	1.7	13	GND
26	1.6	21	4.7	14	11.3
27	2.6	22	1.6	15	5.5
28	2.2	23	4.9	16	11.6
29	4.8	24	1.7	17	7.6
30	0	25	3.5	18	0.6
31	0	26	3.4	19	NC
32	0	27	9	20	NC
33	4.7	28	0.7	IC501	
34	NC	29	3.1	pin	volt
35	NC	30	3.1	1	3.5
36	0.4	31	3.8	2	1.3
37	0	32	4.4	3	8.4
38	0	IC351		4	-14.3
39	0	pin	volt	5	2.3
40	0	1	4.8	6	3
41	0	2	9.2	7	-14.1
42	0	3	3.6	8	14.6
43	0	4	3.5	IC561	
44	2.7	5	4.3	pin	volt
45	2.8	6	4.3	1	1.3
46	4.8	7	2.5	2	14.6
47	4.8	8	GND	3	-12.8
48	GND	9	2.7	4	-14.3
49	GND	10	2.7	5	-0.1
50	4.8	11	4	6	14.8
51	0	12	3.2	7	1.2
52	0	13	6.2	IC1001	
53	4	14	0.8	pin	volt
54	4	15	0	1	0.2
55	4	16	GND	2	0.1
56	4	IC352		3	0.3
57	4.8	pin	volt	4	0.3
58	O.1	1	6	5	5.5
59	3.9	2	5.9	6	4.6
60	3.9	3	5.9	7	4.7
61	0	4	GND	8	GND
62	4.6	5	1.9	9	9.4
63	0.5	6	1.6	10	0
64	4.5	7	9.2	11	GND
IC002		8	3.9	12	GND
pin	volt	9	4	13	GND
1	GND	10	3.8	14	4
2	GND	11	9.2	15	4
3	GND	12	3.6	16	9.4

All voltages are in V.

PIN 18 (I.C.001)* :CAN NOT BE MEASURED

AX BOARD IC VOLTAGE LIST

IC1901	
pin	volt
1	0
2	0
3	NC
4	NC
5	NC
6	NC
7	0.3
8	GND
9	0
10	NC
11	8.8
12	GND
13	GND
14	4.3
15	4.3
16	8.8
IC1902	
pin	volt
1	4.8
2	4.5
3	4.8
4	0.1
5	GND
6	0
7	0
8	0
9	0
10	0
11	0
12	NC
13	0
14	NC
15	1.2
16	GND

All voltages are in V.

G BOARD IC VOLTAGE LIST

IC622	
pin	volt
1	6.2
2	GND
3	4.9
IC641	
pin	volt
1	12.1
2	0.5
3	9.7
IC643	
pin	volt
1	134
2	NC
3	2.5
4	9.2
5	GND
IC650	
pin	volt
1	13.4
2	GND
3	12
IC651	
pin	volt
1	10.5
2	GND
3	5
IC601	
pin	volt
C1	152
C2	298
B2	151
B1	-1.1
E1	GND
E2	152

All voltages are in V.

BX BOARD IC VOLTAGE LIST

IC3707		69	NC	IC3708	
pin	volt	70	NC	pin	volt
1	GND	71	NC	1	NC
2	GND	72	NC	2	NC
3	1.3	73	NC	3	NC
4	NC	74	NC	4	NC
5	NC	75	NC	5	3.3
6	0	76	NC	6	GND
7	4.1	77	NC	7	GND
8	4.3	78	NC	8	0.4
9	GND	79	NC	9	1
10	NC	80	GND	10	3.3
11	1.1	81	3.3	11	1.1
12	NC	82	3.3	12	1.1
13	NC	83	0.5	13	1.2
14	NC	84	1	14	1.3
15	NC	85	1	15	0.4
16	NC	86	1	16	0.8
17	NC	87	0.1	17	1.2
18	NC	88	0	18	1.3
19	NC	89	0	19	3.3
20	0.4	90	0.6	20	1.1
21	0.8	91	3.3	21	0.4
22	1.2	92	0.6	22	3.3
23	1.3	93	1.4	23	GND
24	1.1	94	1	24	3.3
25	1.1	95	1.9	25	NC
26	1.1	96	0	26	NC
27	1.2	97	NC	27	NC
28	0.4	98	NC	28	NC
29	0.8	99	0	IC3709	
30	GND	100	3.3	pin	volt
31	3.3	IC3705		1	1.2
32	0.1	pin	volt	2	1.1
33	1.4	1	NC	3	1.1
34	0.9	2	5.1	4	1.1
35	1.1	3	2.6	5	GND
36	1.1	4	3.2	6	GND
37	1.3	5	1	7	GND
38	0.4	6	0	8	0.4
39	0.4	7	3.5	9	1
40	1	8	NC	10	3.3
41	1.1	9	2.4	11	1.3
42	1.3	10	2.7	12	1.2
43	1.1	11	0	13	0.8
44	1.1	12	3	14	0.4
45	1.1	13	3	15	0.4
46	0.4	14	5.1	16	0.8
47	0.8	15	5.1	17	0.1
48	1.2	16	3	18	1.4
49	1.3	17	0	19	3.3
50	3.3	18	0	20	1.1
51	GND	19	GND	21	0.4
52	NC	20	4.3	22	GND
53	NC	21	NC	23	GND
54	NC	22	NC	24	GND
55	NC	23	4.1	25	0.9
56	4	24	GND	26	1.1
57	4	25	5.1	27	1.1
58	0.1	26	3.3	28	1.3
59	GND	27	2.9	IC3702	
60	NC	28	3.9	pin	volt
61	NC	29	3.9	O	5.1
62	NC	30	GND	G	GND
63	NC	31	0	I	8.6
64	NC	32	NC	IC3703	
65	NC	33	1.5	pin	volt
66	NC	34	2.6	O	3.3
67	NC	35	NC	G	GND
68	NC	36	2.6	I	5.1

All voltages are in V.

HF BOARD IC VOLTAGE LIST

IC2001	
pin	volt
1	4.8
2	4.8
3	GND

All voltages are in V.

PX BOARD IC VOLTAGE LIST

IC3304	
pin	volt
1	NC
2	1
3	GND
4	5
5	2.5
6	1.5
7	2.1
8	1.4
9	0.6
10	1
11	5
12	GND
13	GND
14	4.8
15	4.9
16	GND
17	0.4
18	GND
19	GND
20	GND
21	GND
22	5
23	0.3
24	0.3
25	0.3
26	0.3
27	0.3
28	0.3
29	0.3
30	0.3
31	5
32	0.8
33	0.8
34	0.5
35	0.8
36	1
37	1
38	1
39	1
40	0
41	GND
42	4.8
43	5
44	GND
45	GND
46	5
47	3.3
48	2.9
49	2
50	1.3
51	1.3
52	1.3
53	1.3
54	1.3
55	1.3
56	1.3
57	1.3
58	1.3
59	GND
60	4.8
61	4.8
62	5
63	GND
64	0.3
65	GND
66	4.8
67	4.8
68	GND
69	GND
70	5
71	0.5
72	0.5
73	1.4
74	2.4
75	1.4
76	2.5

77	4.8
78	GND
79	0.5
80	1.6
81	GND
82	5
83	5
84	GND
85	1
86	0.5
87	2.4
88	1.3
89	0.5
90	1.3
91	GND
92	5
93	0
94	0.5
95	1
96	1.8
97	GND
98	5
99	5
100	GND
IC3302	
pin	volt
1	2.3
2	4.1
3	8.6
4	1.8
5	GND
6	2.9
7	2.9
8	3.2
9	8.7
10	0.8
11	4.5
12	4.4
13	4.4
14	0.2
15	NC
16	NC
17	NC
18	NC
19	NC
20	NC
21	NC
22	NC
23	NC
24	NC
25	8.6
26	2.3
27	NC
28	NC
29	5.2
30	1.5
31	GND
32	5.7
33	3.9
34	4.3
35	8.6
36	4.7
37	4.7
38	3.9
39	3.2
40	2.8
IC3303	
pin	volt
1	5
2	0
3	0.3
4	0.3
5	0.3
6	0.3
7	5
8	0.8
9	0.5
10	1

11	1
12	GND
13	3.3
14	2.1
15	1.4
16	1.4
17	1.4
18	1.4
19	1.4
20	5
21	GND
22	1.4
23	1.4
24	1.2
25	1.3
26	1.3
27	3.1
28	GND
29	GND
30	GND
31	1
32	1
33	0.8
34	0.8
35	GND
36	0.3
37	0.3
38	0.3
39	0.2
40	GND
IC3309	
pin	volt
1	2.3
2	4.1
3	8.6
4	1.9
5	GND
6	2.9
7	2.9
8	2.8
9	8.6
10	0.7
11	2.9
12	4.3
13	4.3
14	0.2
15	0.8
16	0.8
17	GND
18	2.7
19	2.8
20	2.9
21	NC
22	NC
23	NC
24	NC
25	8.6
26	2.3
27	NC
28	NC
29	NC
30	NC
31	GND
32	4.7
33	3.8
34	3.8
35	GND
36	4.7
37	4.7
38	3.8
39	3.1
40	0.8
IC3310	
pin	volt
1	GND
2	5
3	GND
4	2.6

5	6.6
6	GND
7	NC
8	GND
9	1.7
10	NC
11	8.2
12	8.2
13	6.6
14	2.3
15	GND
16	GND
17	NC
18	GND
19	2.9
20	2.8
21	6.3
22	2.3
23	GND
24	4.2
IC3308	
pin	volt
1	0
2	2.8
3	3.4
4	2.9
5	2.9
6	GND
7	GND
8	GND
9	0.4
10	0.5
11	0.5
12	2.8
13	3.5
14	2.9
15	3
16	9
IC3301	
pin	volt
1	0.2
2	0
3	3.3
4	2.9
5	2.9
6	GND
7	GND
8	GND
9	0
10	0
11	3.5
12	0
13	2.9
14	3.2
15	3.2
16	9
IC3311	
pin	volt
1	5
2	2
3	4.3
4	NC
5	NC
6	9
7	0
8	GND
CM3301	
pin	volt
1	4.8
2	GND
3	4.7
4	0.8
IC3306	
pin	volt
1	5
2	GND
3	GND
4	9

All voltages are in V.

UX BOARD IC VOLTAGE LIST

IC261	
pin	volt
1	4.5
2	4.5
3	4.5
4	4.5
5	4.5
6	4.4
7	4.5
8	4.5
9	NC
10	4.5
11	NC
12	0
13	NC
14	4.5
15	4.5
16	4.5
17	NC
18	0
19	4.5
20	4.5
21	4.5
22	4.5
23	4.5
24	4.5
25	NC
26	NC
27	NC
28	NC
29	NC
30	0
31	4
32	4
33	GND
34	4.5
35	4.4
36	“4,5”
37	GND
38	NC
39	8.8
40	NC
41	NC
42	4.3
43	NC
44	NC
45	NC

46	GND
47	NC
48	GND
49	4.3
50	4.5
51	4.4
52	4.5
53	4.5
54	4.4
55	4.5
56	4
57	GND
58	4.5
59	4.5
60	4.5
61	4.5
62	4.5
63	4.5
64	4.5
IC1051	
pin	volt
1	0.1
2	0.1
3	0.4
4	NC
5	NC
6	NC
7	NC
8	GND
9	0.1
10	NC
11	GND
12	8.9
13	GND
14	4
15	4
16	8.9
IC1402	
pin	volt
1	4.4
2	4.4
3	4.4
4	GND
5	4.4
6	4.4
7	4.4
8	8.9

All voltages are in V.

WA BOARD IC VOLTAGE LIST

IC961	
pin	volt
1	4
2	4
3	4
4	4
5	9
6	4.3
7	GND
8	NC
9	NC
10	7.7
11	NC
12	6.7
13	NC
14	NC
15	2
16	4
17	5
18	NC
19	3.5
20	GND
21	0.6
22	NC
IC962	
pin	volt
1	0
2	0.9
3	0.9
4	GND
5	0.8
6	7.1
7	4.7
8	9

IC963	
pin	volt
1	5.6
2	4.4
3	4.4
4	GND
5	5
6	5
7	5
8	9
IC964	
pin	volt
1	5.6
2	4.5
3	4.5
4	GND
5	5
6	5
7	5
8	9
IC981	
pin	volt
1	4.7
2	4.7
3	4.7
4	GND
5	4.7
6	4.7
7	4.7
8	11.6
IC965	
pin	volt
O	9.1
G	GND
I	11.6

All voltages are in V.

C BOARD IC VOLTAGE LIST

IC1761	
pin	volt
1	3.5
2	9.1
3	3.3
4	GND
5	7.1
6	212.6
7	141
8	143
9	140
IC1762	
pin	volt
1	3.5
2	9.1
3	3.3
4	GND
5	6.3
6	212.6
7	148
8	150
9	146
IC1763	
pin	volt
1	3.5
2	9.1
3	3.3
4	GND
5	4.1
6	212.6
7	146
8	148
9	145

All voltages are in V.

A BOARD LOCATION LIST

DIODE		IC352	D-10
D001	B-5	IC353	D-11
D002	D-2	IC501	G-2
D003	A-5	IC561	H-6
D004	C-2	IC1001	D-9
D011	A-5	**TRAN.**	
D012	C-1	Q001	B-5
D013	C-5	Q002	C-4
D014	D-2	Q003	H-1
D015	C-3	Q004	H-1
D353	D-7	Q005	B-5
D356	E-3	Q010	D-4
D360	E-7	Q011	D-4
D362	E-7	Q012	D-3
D363	C-11	Q013	D-3
D368	C-7	Q014	D-3
D501	H-2	Q015	D-3
D502	I-8	Q016	D-2
D503	I-8	Q017	A-5
D504	J-7	Q304	C-7
D505	I-6	Q305	C-7
D506	I-6	Q306	C-7
D507	H-2	Q351	C-11
D510	F-8	Q354	E-7
D511	F-8	Q356	C-4
D512	F-9	Q357	E-4
D513	F-9	Q358	E-7
D515	G-4	Q359	E-13
D516	H-2	Q360	E-12
D518	H-2	Q361	E-11
D519	G-9	Q362	E-12
D520	F-2	Q363	E-12
D521	F-2	Q364	E-12
D522	G-2	Q365	B-12
D530	G-8	Q366	B-10
D531	G-9	Q367	B-10
D534	G-8	Q368	C-9
D561	H-7	Q369	D-10
D1001	C-6	Q370	E-13
D1002	C-7	Q501	I-2
D1003	E-10	Q502	J-9
D1004	E-10	Q503	G-2
D1102	B-10	Q504	G-3
D1103	B-12	Q507	F-9
D1104	A-7	Q511	H-2
D1105	A-7	Q512	F-3
D1301	D-13	Q561	G-5
D1302	D-12	Q562	G-5
D1304	D-12	Q1001	C-6
D1305	D-12	Q1102	B-12
D1306	D-13	Q1103	A-10
IC		Q1351	C-10
IC001	B-3	Q1352	E-13
IC002	C-3	Q1353	D-13
IC351	D-5	Q1354	D-12

G BOARD LOCATION LIST

DIODE		D651	C-3
D600	G-1	D652	D-3
D601	D-1	D653	D-5
D602	I-3	D698	G-2
D603	E-3	D699	F-2
D604	E-5	**IC**	
D606	C-1	IC601	H-4
D607	E-4	IC622	D-1
D608	E-5	IC641	B-4
D612	D-2	IC643	D-3
D613	E-1	IC650	B-2
D614	A-2	IC651	B-1
D621	G-2	**TRAN.**	
D622	G-2	Q621	F-2
D623	F-2	Q622	G-2
D624	F-2	Q623	E-4
D625	F-1	Q624	C-1
D626	G-2	Q644	A-2
D627	F-1	Q645	E-2
D628	E-1	Q646	D-1
D629	I-5	Q647	D-1
D630	H-4	Q648	A-2
D641	C-2	Q649	B-3
D642	C-3	Q650	B-3
D643	D-4	Q651	E-4
D647	B-4	Q652	E-5
D648	C-4	Q653	E-5

UX BOARD LOCATION LIST

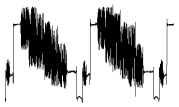
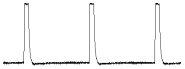
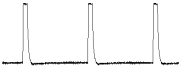
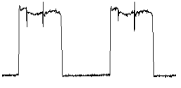
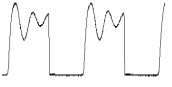
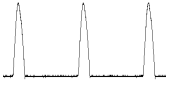
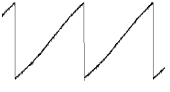
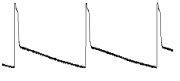
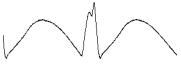
DIODE	SIDE	LOC.	IC1402	A	A-8
D201	B	B-5	**TRAN.**	**SIDE**	**LOC.**
D202	B	B-5	Q202	B	B-4
D203	B	C-5	Q203	B	C-4
D204	B	E-5	Q205	B	B-4
D205	B	E-5	Q206	B	C-4
D231	B	B-6	Q208	B	B-4
D232	B	B-6	Q209	B	C-4
D233	B	B-6	Q210	A	F-6
D234	B	B-6	Q211	A	F-6
D235	B	C-5	Q212	A	F-6
D236	B	D-5	Q231	B	B-3
D237	B	B-6	Q233	B	C-3
D238	B	D-5	Q234	B	D-3
D239	B	D-5	Q235	B	C-2
D245	B	C-3	Q236	B	D-2
D246	B	E-2	Q237	A	B-7
D247	A	F-6	Q238	A	B-7
D248	B	E-2	Q239	A	B-7
D249	A	F-6	Q240	B	F-4
D250	B	F-3	Q241	B	F-4
D261	B	D-3	Q242	B	F-3
D902	B	E-2	Q243	B	E-3
D910	B	E-6	Q244	B	E-3
D911	B	E-6	Q245	B	E-3
D912	B	E-5	Q246	B	B-3
D1051	B	B-1	Q262	A	C-6
D1052	B	A-2	Q263	B	A-3
D2201	B	F-5	Q264	A	B-6
D2202	B	F-5	Q265	A	E-6
D2203	B	F-5	Q266	B	D-3
IC	**SIDE**	**LOC.**	Q267	A	F-7
IC261	A	D-4	Q268	A	B-8
IC1051	A	B-2	Q1051	B	A-2

K BOARD IC VOLTAGE LIST

IC5201		38	NC	77	4.9	14	NC
pin	volt	39	NC	78	4.9	15	4
1	NC	40	NC	79	4.9	16	GND
2	GND	41	NC	80	GND	17	3.8
3	GND	42	NC	81	GND	18	3.8
4	GND	43	NC	82	GND	19	1.8
5	2.6	44	GND	83	4.9	20	1.8
6	2.6	45	NC	84	GND	21	0
7	4.9	46	NC	85	GND	22	0
8	4.9	47	4.9	86	GND	23	4.4
9	2.6	48	NC	87	GND	24	4.4
10	2.6	49	NC	88	GND	25	4.4
11	GND	50	NC	89	GND	26	4.4
12	GND	51	NC	90	4.8	27	4.4
13	NC	52	NC	91	2.4	28	4.4
14	NC	53	NC	92	4.9	29	NC
15	NC	54	GND	93	4.9	30	4.4
16	4.9	55	4.9	94	2.4	31	4.4
17	NC	56	GND	95	4.8	32	5.1
18	NC	57	0.7	96	GND	**IC1461**	
19	4.9	58	4.9	97	GND	pin	volt
20	NC	59	GND	98	2.1	1	1.6
21	NC	60	GND	99	2.2	2	0
22	NC	61	GND	100	4.9	3	GND
23	GND	62	GND	**IC2401**		4	0
24	GND	63	GND	pin	volt	5	1.6
25	NC	64	GND	1	GND	6	11.5
26	NC	65	NC	2	4.4	7	16.1
27	NC	66	GND	3	4.4	8	0.9
28	NC	67	GND	4	4.4	9	34.1
29	NC	68	GND	5	NC	10	GND
30	4.9	69	GND	6	4.4	11	0
31	4.9	70	GND	7	4.4	12	15.3
32	NC	71	GND	8	0	**IC5202**	
33	NC	72	GND	9	4.4	pin	volt
34	NC	73	3.9	10	4.4	1	4.9
35	NC	74	3.9	11	8.8	2	4.9
36	NC	75	GND	12	3.8	3	GND
37	NC	76	4.9	13	4		

All voltages are in V.

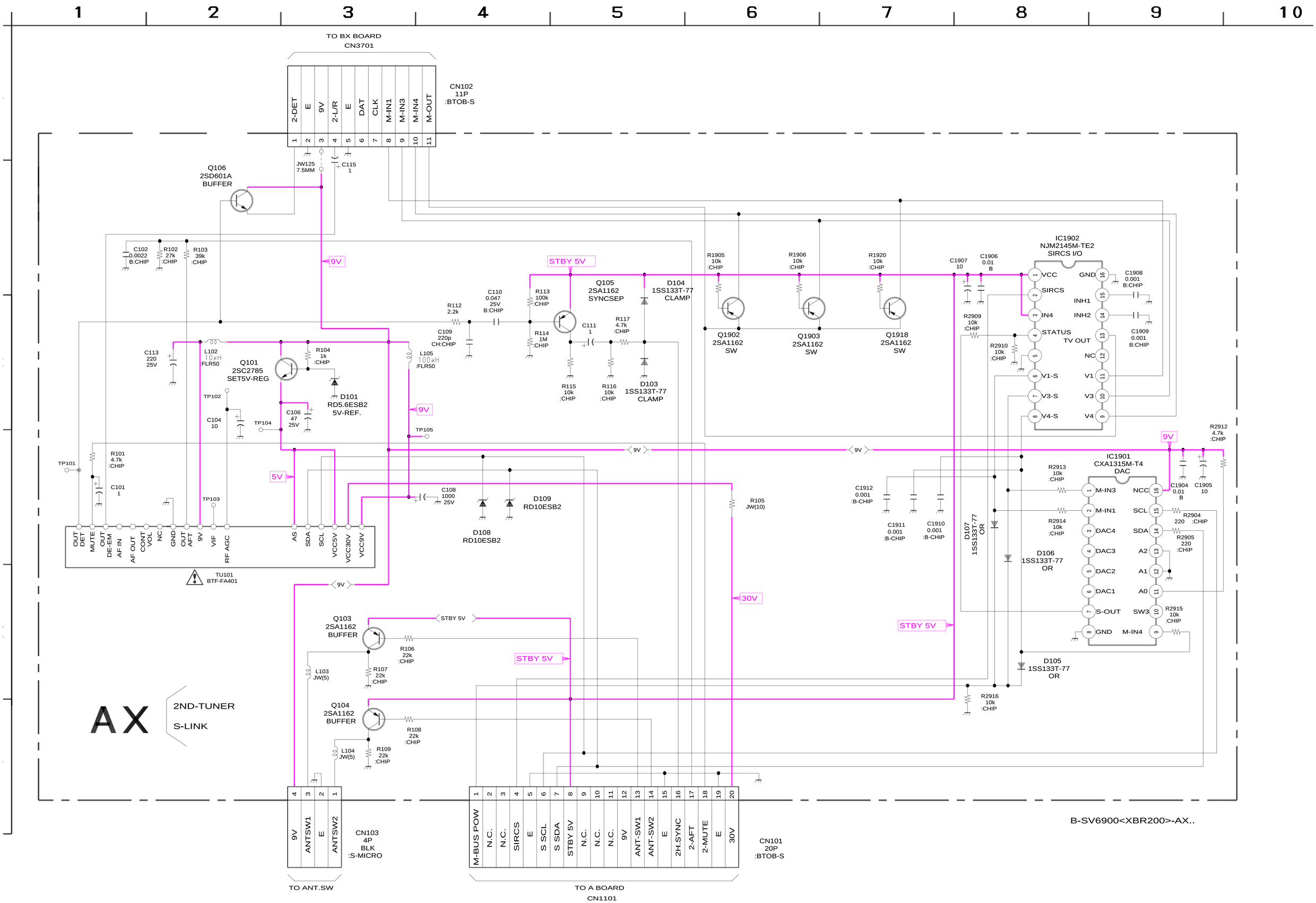
- A BOARD WAVEFORMS

1  1.9 Vp-p (H)	2  4.9 Vp-p (H)	3 5.2 Vp-p (H)	4  4.3 Vp-p (8MHz)
5 3.4 Vp-p (H)	6 1.7 Vp-p (H)	7 2.2 Vp-p (H)	8 1.1 Vp-p (V)
9 4.0 Vp-p (H)	10 3.4 Vp-p (H)	11 3.8 Vp-p (H)	12 6.8 Vp-p (V)
13 1.7 Vp-p (H)	14 1.7 Vp-p (H).	15  3.4 Vp-p (H)	16  204.7 Vp-p (H)
17 55.6 Vp-p (H)	18  1.08 KVp-p (H)	19  1.0 Vp-p (V)	20  56.5 Vp-p (V)
21 0.7 Vp-p (V)	22  250.0 Vp-p (H)	23 2.2 Vp-p (V)	

A BOARD (*) MARK LIST

PART	LOC.	KV-32XBR200	KV36XBR200
R541	F-10	OXIDE 6.8K 5% 3W	OXIDE 2.2K 5% 3W
R560	F-10	OXIDE 6.8K 5% 3W	OXIDE 2.2K 5% 3W
C550	F-10	680pf 10% 500V	560pf 10% 500V
C553	I-6	0.33MF 5% 200V	0.47MF 5% 200V
C1501	I-7	#	0.1MF 5% 200V

#: NOT MOUNTED


1
2
3
4
5
6
7
8
9
10
TO BX BOARD
CN3701
2-DET
E
9V
2-L/R
E
DAT
CLK
M-IN1
M-IN3
M-IN4
M-OUT
CN102
11P
:BTOB-S
JW125
7.5MM
C115
1
Q106
2SD601A
BUFFER
C102
0.0022
B:CHIP
R102
27k
:CHIP
R103
39k
:CHIP
9V
STBY 5V
R112
2.2k
C110
0.047
25V
B:CHIP
C109
220p
CH:CHIP
R113
100k
:CHIP
R114
1M
:CHIP
Q105
2SA1162
SYNCSEP
C111
1
R115
10k
:CHIP
R117
4.7k
:CHIP
R116
10k
:CHIP
D104
1SS133T-77
CLAMP
D103
1SS133T-77
CLAMP
R1905
10k
:CHIP
R1906
10k
:CHIP
R1920
10k
:CHIP
Q1902
2SA1162
SW
Q1903
2SA1162
SW
Q1918
2SA1162
SW
C1907
10
C1906
0.01
B
IC1902
NJM2145M-TE2
SIRCS I/O
VCC
SIRCS
IN4
STATUS
TV OUT
NC
V1-S
V3-S
V4-S
GND
INH1
INH2
V1
V3
V4
C1908
0.001
B:CHIP
C1909
0.001
B:CHIP
R2909
10k
:CHIP
R2910
10k
:CHIP
C113
220
25V
L102
10μH
:FLR50
Q101
2SC2785
SET5V-REG
R104
1k
:CHIP
D101
RD5.6ESB2
5V-REF.
L105
100μH
:FLR50
TP102
C104
10
TP104
C106
47
25V
TP105
9V
R2912
4.7k
:CHIP
IC1901
CXA1315M-T4
DAC
M-IN3
M-IN1
DAC4
DAC3
DAC2
DAC1
S-OUT
GND
NCC
SCL
SDA
A2
A1
A0
SW3
M-IN4
R2913
10k
:CHIP
R2914
10k
:CHIP
R2904
220
:CHIP
R2905
220
:CHIP
R2915
10k
:CHIP
C1904
0.01
B
C1905
10
TP101
R101
4.7k
:CHIP
C101
1
TP103
5V
C108
1000
25V
D109
RD10ESB2
D108
RD10ESB2
R105
JW(10)
C1912
0.001
:B-CHIP
C1911
0.001
:B-CHIP
C1910
0.001
:B-CHIP
D107
1SS133T-77
OR
D106
1SS133T-77
OR
D105
1SS133T-77
OR
OUT DET
MUTE
OUT DE-EM
AF IN
AF OUT
CONT VOL
NC
GND
OUT AFT
9V
VIF
RF AGC
AS
SDA
SCL
VCC5V
VCC30V
VCC9V
TU101
BTF-FA401
30V
Q103
2SA1162
BUFFER
R106
22k
:CHIP
L103
JW(5)
R107
22k
:CHIP
Q104
2SA1162
BUFFER
R108
22k
:CHIP
L104
JW(5)
R109
22k
:CHIP
R2916
10k
:CHIP
AX
2ND-TUNER
S-LINK
9V
ANTSW1
E
ANTSW2
CN103
4P
BLK
:S-MICRO
TO ANT.SW
M-BUS POW
N.C.
N.C.
SIRCS
E
S SCL
S SDA
STBY 5V
N.C.
N.C.
N.C.
9V
ANT-SW1
ANT-SW2
E
2H.SYNC
2-AFT
2-MUTE
E
30V
CN101
20P
:BTOB-S
TO A BOARD
CN1101
B-SV6900<XBR200>-AX..

BX

[DIGITAL COMB FILTER]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

TO B BOARD CN3502

TO UX BOARD CN261

CN3702 18P :BTOB-P

1	MAIN-V
2	E
3	MAIN-C
4	E
5	MAIN-Y
6	E
7	2-DET
8	E
9	2-L
10	2-R
11	9V
12	SCL
13	SDA
14	FSC
15	M-IN1
16	M-IN3
17	M-IN4
18	M-OUT

11	M-OUT
10	M-IN4
9	M-IN3
8	M-IN1
7	CLK
6	DAT
5	NEW ENA
4	2-L/R
3	9V
2	E
1	2-DET

CN3701 11P :BTOB-P

TO AX BOARD CN102

TO B BOARD CN3501

IC3705 μPC1862GS-E2 CLOCK GEN

IC3707 μPD64388F-3BA 3D COMB

IC3708 MN47V76ST1 1M FIELD MEMORY

IC3709 MN47V77ST1 2M FIELD MEMORY

IC3702 NJM78M05FA 5V REG

IC3703 BA033T 3.3V REG

Q3703 2SD601A BUFFER

Q3701 2SA1162 BUFFER

Q3709 2SA1162 BUFFER

Q3707 2SD601A BUFFER

Q3702 2SA1162 BUFFER

Q3724 2SD601A AMP

Q3725 2SA1162 AMP

Q3728 2SA1162 BUFFER

Q3729 2SA1162 BUFFER

Q3708 2SA1162 BUFFER

Q3731 2SD601A AMP

Q3732 2SA1162 AMP

Q3734 2SD601A KILLER SW2

Q3733 2SD601A KILLER SW1

Q3719 2SD601A BUFFER

D3705 MA111TX PROTECT

D3706 MA111TX PROTECT

D3707 MA111TX PROTECT

D3708 MA111TX PROTECT

D3704 MA111TX RESET

FL3702

FL3704

FL3705

FL3706

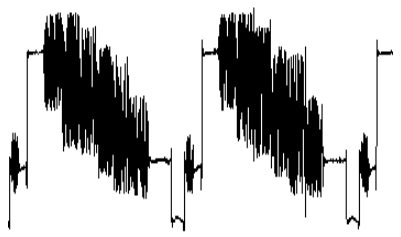
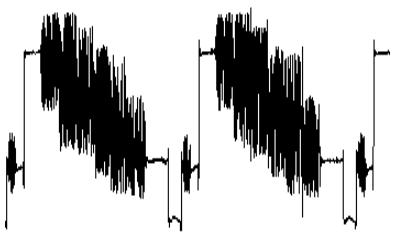
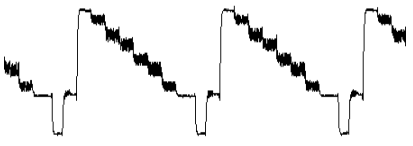
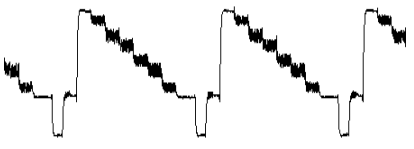
FL3707

X3701 14.31818MHz VIBRATOR

X3702 503KHz

B-#SV6900<XBR200>-BX..

- BX BOARD WAVEFORMS

1  2.1 Vp-p (H)	2  1.8 Vp-p (H)	3 1.0 Vp-p (H)
4  1.4 Vp-p (H)	5 1.1 Vp-p (H)	6  1.8 Vp-p (H)

C
RGB DRIVE
CRT DRIVE

CN1764
5P
WHT
:S-MICRO

TO A BOARD
CN503

HEATER	1
E	2
N.C.	3
N.C.	4
200V	5

CN1765
1P

TO A BOARD
FBT

G2	1

FV

CN1761
6P
WHT
:S-MICRO

TO A BOARD
CN351

R	1
G	2
B	3
9V	4
E	5
IK	6

R-OUT
TP47R

B-OUT
TP47B

C1761 10p :CH
C1763 10p :CH
C1765 10p :CH

R1761 470 :RN
R1762 470 :RN
R1763 1.3k :RN
R1764 100k
R1765 22k
R1766 1.3k :RN
R1767 47k
R1768 100
R1769 1k
R1770 1.3k :RN
R1771 18k

D1762 1SS133 R-CLIP
D1763 1SS133 G-CLIP
D1764 1SS133 B-CLIP

C1762 47 25V
C1764 47 25V

Q1761
2SA1175
BUFFER

D1767
RD5.6ESB2
SLICE

C1767 0.01 B

IC1761
TDA6101Q/N3
VIDEO-AMP

IC1762
TDA6101Q/N3
VIDEO-AMP

IC1763
TDA6101Q/N3
VIDEO-AMP

C1768 0.01 B
C1769 1
C1770 560p 500V B
C1771 1 250V
C1772 0.01 B
C1773 560p 500V B
C1774 1 250V
C1775 0.01 B
C1776 560p 500V B
C1777 1 250V

D1768 1SS133 VB-RECT
D1769 RD3.9ESB1 BIAS
D1770 1SS83TD PROTECT
D1771 1SS83TD PROTECT
D1712 1SS83TD PROTECT

R1772 2.2k
R1773 2.7k
R1774 68k 2W :FPRD
R1775 2.7k
R1776 68k 2W :FPRD
R1778 2.7k
R1779 68k 2W :FPRD
R1780 39k
R1782 1k 1/2W
R1777 1k 1/2W
R1781 1k 1/2W

C1778 0.001 B
R1783 100 1/2W

R1786 22k 1/2W
R1787 2.7 2W :FPRD
R1788 560k 1/2W

J1761
L1761 10μH :FLR50
C1783 0.022 200V :PT
C1784 0.022 200V :PT
C1786 4.7 250V

D1713
GP08D
G1-RESET

RV1761 110M
H.STAT

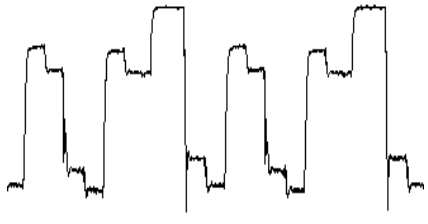
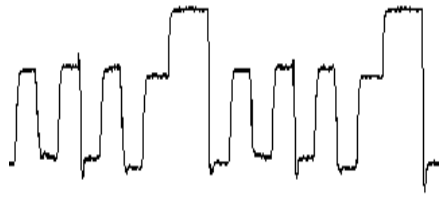
C1779 0.01 1kV B

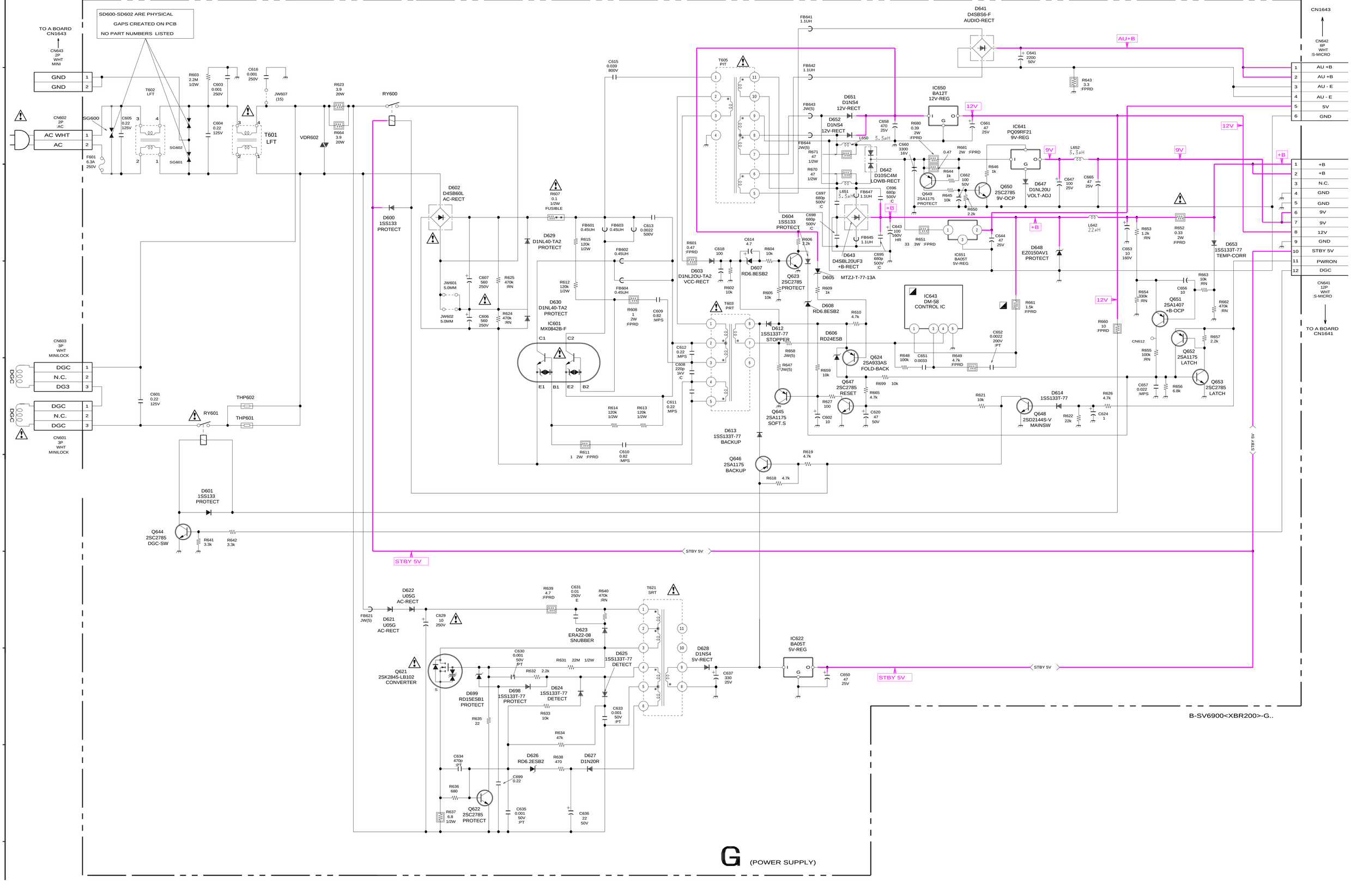
CN1763
1 E
TAB(CONTACT)
TO CRT GROUND

KG KB G2
H
CV KR G1 G4 HV
CRT
32V: 34RSN-A1
36V: 38RSN-A1

9V
200V
R
G
B

. C BOARD WAVEFORMS

1  154.7 Vp-p (H)	2 118.8 Vp-p (H)	3  142.2 Vp-p (H)


SD600-SD602 ARE PHYSICAL GAPS CREATED ON PCB NO PART NUMBERS LISTED
TO A BOARD CN1643
CN643 2P WHT MINI
GND 1
GND 2
CN602 2P AC
AC WHT 1
AC 2
SG600
F601 6.3A 250V
C605 0.22 125V
T602 LFT
SG602
SG601
C603 0.001 250V
C604 0.22 125V
R603 2.2M 1/2W
C616 0.001 250V
JW607 (15)
T601 LFT
R623 3.9 20W
R664 3.9 20W
VDR602
RY600
D600 1SS133 PROTECT
D602 D4SB60L AC-RECT
C615 0.039 800V
R607 0.1 1/2W FUSIBLE
D629 D1NL40-TA2 PROTECT
FB601 0.45UH
FB603 0.45UH
C613 0.0022 500V
R615 120k 1/2W
FB602 0.45UH
FB604 0.45UH
R612 120k 1/2W
R608 1 2W :FPRD
C609 0.82 :MPS
JW601 5.0MM
JW602 5.0MM
C607 560 250V
C606 560 250V
R625 470k :RN
R624 470k :RN
D630 D1NL40-TA2 PROTECT
IC601 MX08428-F
C1
C2
E1
B1
E2
B2
C612 0.22 :MPS
C608 220p 1kV :C
C611 0.22 :MPS
R614 120k 1/2W
R613 120k 1/2W
R611 1 2W :FPRD
C610 0.82 :MPS
T605 PIT
FB641 1.1UH
FB642 1.1UH
FB643 JW(5)
FB644 JW(5)
D641 D4SBS6-F AUDIO-RECT
C641 2200 50V
R643 3.3 :FPRD
AU+B
IC650 BA12T 12V-REG
12V
D651 D1NS4 12V-RECT
D652 D1NS4 12V-RECT
L650 3.3uH
C658 470 25V
R680 0.39 2W :FPRD
C661 47 25V
C660 3300 16V
R671 47 1/2W
R670 47 1/2W
D642 D10SC4M LOWB-RECT
C696 680p 500V :C
C697 680p 500V :C
L651 3.3uH
FB647 1.1UH
C698 680p 500V :C
D604 1SS133 PROTECT
+B
C643 100 160V HR
FB645 1.1UH
D643 D4SBL20UF3 +B-RECT
C695 680p 500V :C
R601 0.47 :FPRD
C618 100
C614 4.7
R604 10k
R606 2.2k
D603 D1NL20U-TA2 VCC-RECT
R602 10k
D607 RD6.8ESB2
Q623 2SC2785 PROTECT
R605 10k
R609 1k
D605 MTZJ-T-77-13A
T603 PRT
D608 RD6.8ESB2
R610 4.7k
D606 RD24ESB
D612 1SS133T-77 STOPPER
R658 JW(5)
R647 JW(5)
Q624 2SA933AS FOLD-BACK
Q647 2SC2785 RESET
R659 10k
R627 100
C602 10
R665 4.7k
C620 47 50V
R699 10k
Q645 2SA1175 SOFT.S
D613 1SS133T-77 BACKUP
Q646 2SA1175 BACKUP
R619 4.7k
R618 4.7k
IC643 DM-58 CONTROL IC
R661 1.5k :FPRD
C652 0.0022 200V :PT
R648 100k
C651 0.0033
R649 4.7k :FPRD
R660 10 :FPRD
R621 10k
D614 1SS133T-77
R626 4.7k
R622 22k
C624 1
Q648 2SD2144S-V MAINSW
D648 EZ0150AV1 PROTECT
L642 22uH
C653 10 160V
R653 1.2k :RN
R652 0.33 2W :FPRD
D653 1SS133T-77 TEMP-CORR
9V
C647 100 25V
C665 47 25V
L652 3.3uH
IC641 PQ09RF21 9V-REG
R646 1k
R644 1k
C662 100 50V
R645 10k
Q649 2SA1175 PROTECT
R681 2W :FPRD
0.47
Q650 2SC2785 9V-OCP
D647 D1NL20U VOLT-ADJ
R650 2.2k
IC651 BA05T 5V-REG
C644 47 25V
R663 10k :RN
C656 10
R654 330k :RN
R662 470k :RN
Q651 2SA1407 +B-OCP
CN612
R655 100k :RN
R657 2.2k
Q652 2SA1175 LATCH
R656 6.8k
C657 0.022 :MPS
Q653 2SC2785 LATCH
CN1643
CN642 6P WHT :S-MICRO
1 AU +B
2 AU +B
3 AU - E
4 AU - E
5 5V
6 GND
1 +B
2 +B
3 N.C.
4 GND
5 GND
6 9V
7 9V
8 12V
9 GND
10 STBY 5V
11 PWRON
12 DGC
CN641 12P WHT :S-MICRO
TO A BOARD CN1641
CN603 3P WHT MINILOCK
DGC 1
N.C. 2
DG3 3
DGC 1
N.C. 2
DGC 3
CN601 3P WHT MINILOCK
C601 0.22 125V
RY601
THP602
THP601
D601 1SS133 PROTECT
Q644 2SC2785 DGC-SW
R641 3.3k
R642 3.3k
STBY 5V
D622 U05G AC-RECT
FB621 JW(5)
D621 U05G AC-RECT
C629 10 250V
R639 4.7 :FPRD
C631 0.01 250V E
R640 470k :RN
T621 SRT
D623 ERA22-08 SNUBBER
Q621 2SK2845-LB102 CONVERTER
C630 0.001 50V :PT
R631 22M 1/2W
R632 2.2k
D625 1SS133T-77 DETECT
D628 D1NS4 5V-RECT
D699 RD15ESB1 PROTECT
D698 1SS133T-77 PROTECT
D624 1SS133T-77 DETECT
R635 22
R633 10k
C633 0.001 50V :PT
R634 47k
C634 470p :PT
D626 RD6.2ESB2
R638 470
D627 D1N20R
C699 0.22
R636 680
Q622 2SC2785 PROTECT
R637 6.8 1/2W
C635 0.001 50V :PT
C636 22 50V
IC622 BA05T 5V-REG
C637 330 25V
C650 47 25V
B-SV6900<XBR200>-G..
G (POWER SUPPLY)

HF

[FRONT A/V]

[IR DETECTOR]

PIN JACL(L TYPE)

FRONT VIDEO2

E	9
FRONT Y	8
E	7
FRONT V	6
FRONT C	5
FRONT-SW	4
FRONT L	3
FRONT R	2
E	1

CN1232
9P
WHT
:S-MICRO

TO A BOARD
CN1231

J1232
Y
C
4
3
2
1

D1233
RD10ESB2
PROT

R1233
4.7k
:CHIP

J1231
V
L
R

R1235
4.7k
:CHIP

C1234
1

R1236
470k
:CHIP

C1235
1

R1237
4.7k
:CHIP

R1238
470k
:CHIP

IC2001
SBX1981-51
DETECTOR
3
2
1

STBY 5V

R2003 47

C2001
100
25V

R2001
470
:CHIP

D2002
LNJ801LPDJA
TIMER LED

R2002
470
:CHIP

D2003
LNJ801LPDJA
STEREO LED

TO A BOARD
CN1001

CN2001
5P
WHT-L
:S-MICRO

1	SIRCS
2	STBY 5V
3	E
4	TIMER LED
5	ST LED

HX

REMOTE SENSOR, LED, KEY

R2015
100
:CHIP

CN2002
3P
WHT-L
:S-MICRO

1	POWER ON
2	E
3	KEY

TO A BOARD
CN1002

S2007
POWER

R2014
10k
:CHIP

S2006
SET UP

R2013
4.7k
:CHIP

S2005
TV/V

R2012
1.8k
:CHIP

S2004
CH+

R2011
1k
:CHIP

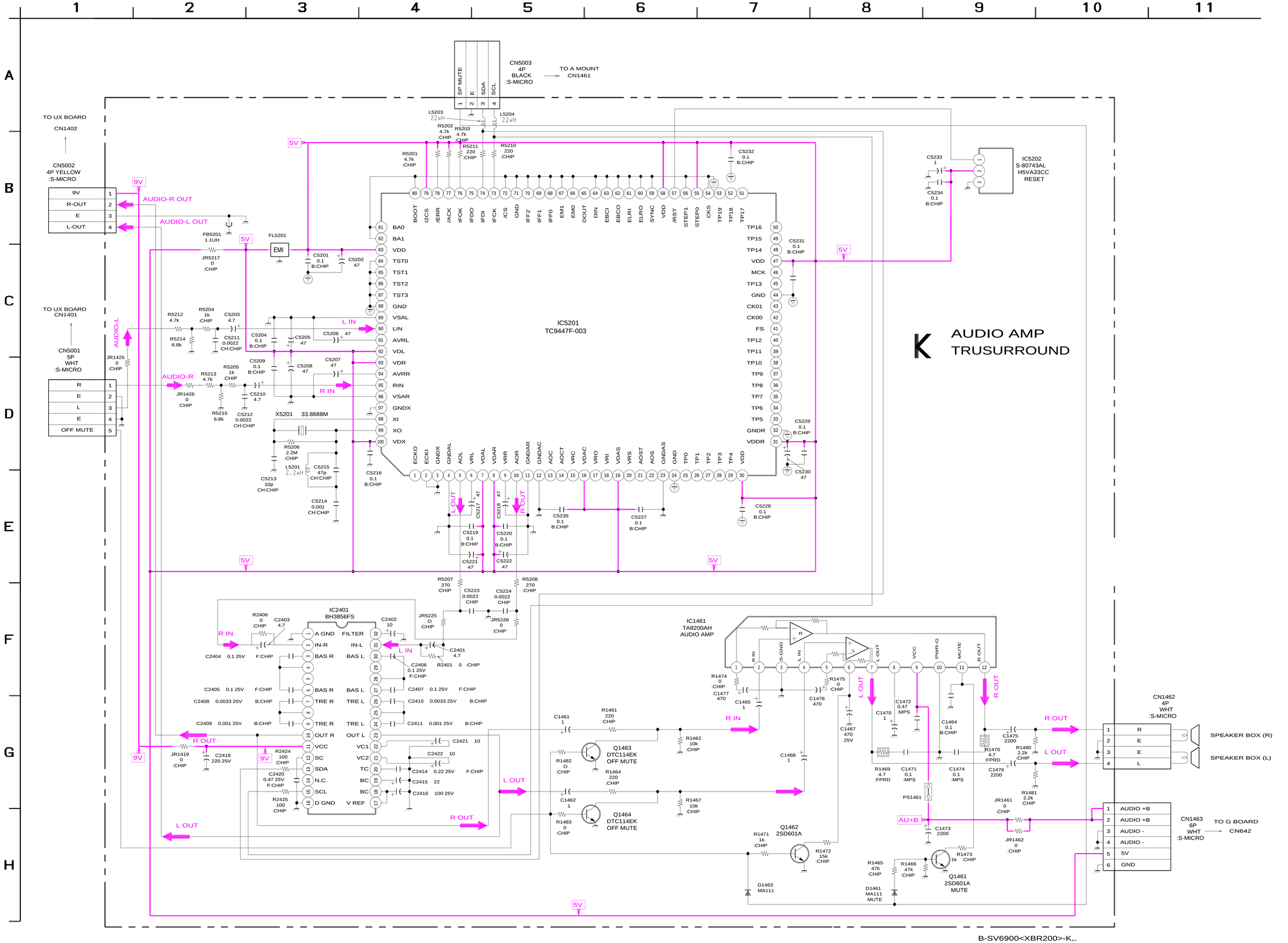
S2003
CH-

R2010
820
:CHIP

S2002
VOL+

S2001
VOL-

B-SV6900<XBR200>-HX..

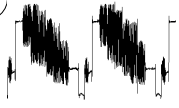
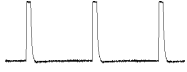
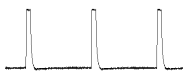
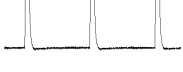
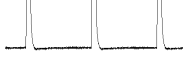

K
AUDIO AMP
TRUSURROUND
IC5201
TC9447F-003
IC2401
BH3856FS
IC1461
TA8200AH
AUDIO AMP
CN5003
4P
BLACK
:S-MICRO
TO A MOUNT
CN1461
SP MUTE
E
SDA
SCL
TO UX BOARD
CN1402
CN5002
4P YELLOW
:S-MICRO
9V
R-OUT
E
L-OUT
AUDIO-R OUT
AUDIO-L OUT
TO UX BOARD
CN1401
CN5001
5P
WHT
:S-MICRO
R
E
L
E
OFF MUTE
AUDIO-L
AUDIO-R
5V
EMI
FL5201
FB5201
1.1UH
JR5217
0
:CHIP
X5201 33.8688M
L5201
2.2μH
L5203
22μH
L5204
22μH
R5201
4.7k
:CHIP
R5202
4.7k
:CHIP
R5203
4.7k
:CHIP
R5210
220
:CHIP
R5211
220
:CHIP
C5232
0.1
B:CHIP
C5233
1
C5234
0.1
B:CHIP
IC5202
S-80743AL
H5VA33CC
RESET
C5231
0.1
B:CHIP
C5229
0.1
B:CHIP
C5230
47
C5228
0.1
B:CHIP
C5235
0.1
B:CHIP
C5227
0.1
B:CHIP
C5201
0.1
B:CHIP
C5202
47
L IN
R IN
L OUT
R OUT
R5212
4.7k
R5214
6.8k
R5204
1k
:CHIP
C5203
4.7
C5211
0.0022
CH:CHIP
C5204
0.1
B:CHIP
C5205
47
C5206
47
R5213
4.7k
R5215
6.8k
R5205
1k
:CHIP
C5209
0.1
B:CHIP
C5208
47
C5207
47
C5210
4.7
C5212
0.0022
CH:CHIP
JR1425
0
:CHIP
JR1426
0
:CHIP
JR1419
0
:CHIP
C2418
220 25V
C5213
10p
CH:CHIP
C5214
0.001
CH:CHIP
C5215
47p
CH:CHIP
R5206
2.2M
:CHIP
C5216
0.1
B:CHIP
C5217
47
C5218
47
C5219
0.1
B:CHIP
C5220
0.1
B:CHIP
C5221
47
C5222
47
R5207
270
:CHIP
R5208
270
:CHIP
C5223
0.0022
CHIP
C5224
0.0022
CHIP
JR5225
0
:CHIP
JR5226
0
:CHIP
R2406
0
:CHIP
C2403
4.7
C2402
10
C2401
4.7
R2401
0
:CHIP
C2404 0.1 25V F:CHIP
C2405 0.1 25V F:CHIP
C2406
0.1 25V
F:CHIP
C2407 0.1 25V F:CHIP
C2408 0.0033 25V B:CHIP
C2410 0.0033 25V B:CHIP
C2409 0.001 25V B:CHIP
C2411 0.001 25V B:CHIP
C2421 10
C2422 10
C2414 0.22 25V F:CHIP
C2415 22
C2416 100 25V
R2424
100
:CHIP
R2425
100
:CHIP
C2420
0.47 25V
F:CHIP
R1461
220
:CHIP
R1462
10k
:CHIP
R1464
220
:CHIP
R1467
10k
:CHIP
C1461
1
C1462
1
R1482
0
:CHIP
R1483
0
:CHIP
Q1463
DTC114EK
OFF MUTE
Q1464
DTC114EK
OFF MUTE
R1474
0
:CHIP
C1477
470
C1465
1
R1475
0
:CHIP
C1478
470
C1467
470
25V
C1468
1
C1470
1
C1472
0.47
:MPS
C1464
0.1
B:CHIP
C1475
2200
R1470
4.7
:FPRD
R1480
2.2k
:CHIP
C1476
2200
R1481
2.2k
:CHIP
R1469
4.7
:FPRD
C1471
0.1
:MPS
C1474
0.1
:MPS
PS1461
JR1461
0
:CHIP
JR1462
0
:CHIP
AU+B
C1473
2200
R1471
1k
:CHIP
R1472
15k
:CHIP
Q1462
2SD601A
R1473
1k
:CHIP
Q1461
2SD601A
MUTE
R1465
47k
:CHIP
R1466
47k
:CHIP
D1463
MA111
D1461
MA111
MUTE
CN1462
4P
WHT
:S-MICRO
SPEAKER BOX (R)
SPEAKER BOX (L)
CN1463
6P
WHT
:S-MICRO
TO G BOARD
CN642
AUDIO +B
AUDIO +B
AUDIO -
AUDIO -
5V
GND
B-SV6900<XBR200>-K..

PX

[MULTI PIP]

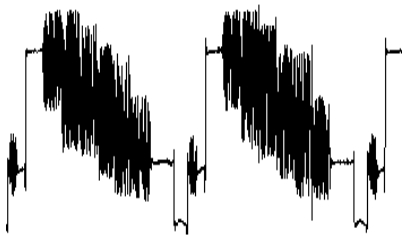
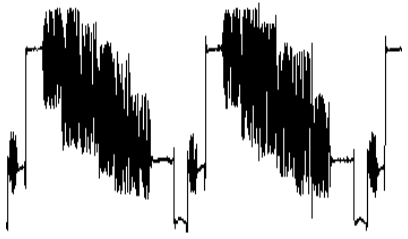
B-SV6900<XBR200>-PX..

•PX BOARD WAVEFORMS

1  2.2 Vp-p (H)	2 1.9 Vp-p (8MHz)	3 2.0 Vp-p (H)	4  3.2 Vp-p (H)
5 1.0 Vp-p (H)	6 3.9 Vp-p (V)	7  3.2 Vp-p (H)	8 4.2 Vp-p (V)
9  6.4 Vp-p (H)	10  6.0 Vp-p (V)		

UX
AV SW
AUDIO CONTROL
SRS
VIDEO1
S TERMINAL BLOCK 3P
VIDEO3
PIN JACK BLOCK 3P
VIDEO4
DVD
VAR. OR FIX OUT
PIN JACK BLOCK 2P
MONITOR OUT
TV OUT
SIRCS OUT S-LINK IN1
SIRCS OUT S-LINK IN3
SIRCS OUT S-LINK IN4
SIRCS IN S-LINK OUT
JACK 3P
TO BX MOUNT CN3702
TO B MOUNT CN3502
CN261 18P :BTOB-S
TO A MOUNT CN270
CN262 20P :BTOB-S
TO A MOUNT CN271
CN264 15P :BTOB-S
TO K BOARD CN5002
CN1402 4P YELLOW :S-MICRO
TO K MOUNT CN5001
CN1401 5P WHT :S-MICRO
IC261 CXA1845Q A.V-SWITCH
IC1051 CXA1315M-T4 D/A CONV.
IC1402 μPC4558G2 VAR-AMP
B-SV6900<XBR200>-UX..

•UX BOARD WAVEFORMS

1  1.0 Vp-p (H)	2 1.0 Vp-p (H)	3 1.6 Vp-p (H)
4  2.3 Vp-p (H)	5 1.9 Vp-p (H)	6 2.0 Vp-p (H)

WA (VELOCITY MOD.)

1 2 3 4 5 6 7 8 9 10 11 12 13

TO A BOARD CN1941

CN941 8P WHT :S-MICRO

VM OUT	1
12V	2
E	3
+B	4
H-PULSE	5
N/S CORR	6
N/S MUTE	7
E	8

TO A BOARD CN1942

CN942 6P RED :S-MICRO

V-PULSE	1
V-DRIVE	2
V-PARA	3
E	4
DF H-DRIVE	5
E	6

CN982 4P WHT S-MICRO

E	1
SDA	2
SCL	3
E	4

TO A BOARD CN 382

CN981 3P WHT :S-MICRO

N/S COIL -	1
N.C	2
N/S COIL +	3

TO N/S COIL

L944 JW(5) C1941 470 25V

Q943 2SD601A BUFFER

Q944 2SD601A AMP

Q945 2SD601A AMP

Q968 2SD601A BUFFER

Q966 2SA1162 BUFFER

D941 1SS133T-77 TEMP-CORR

L942 JW(5) C949 0.0047 500V E

Q946 2SA1837 VM.DRIVE.1

Q947 2SC4793 VM.DRIVE.2

D946 RD39ESB2 DC.BIAS

D947 RD39ESB2 DC.BIAS

IC965 NJM78M09FA 9V-REG

D969 RD5.6ESB2 PROTECT

D968 RD5.6ESB2 PROTECT

IC981 M5216P NS DRIVE

Q981 2SD601A

IC963 NJM2903D H-SAW

Q962 2SA1175

D962 1SS133T-77 PROTECT

D963 MA111-TX CLAMP

Q963 2SA1175 QP-H-DRV

IC962 NJM2903D DF-COMP

IC964 NJM2904D

Q961 2SC2785

Q969 2SC2785

Q967 2SB734-34

Q965 IRF614 QP-H-OUT

Q1961 2SB734-34

D964 11EQS04

D966 EL1Z

D1961 1SS133T-77

D1962 1SS133T-77

L965 10mmH

L964 10mmH :LHL13

JW962 20MM

JW964 5MM

IC961 CXA2026AS DY-CONV.

SDA	1	32	HPARA
SCL	2	31	V IN
PARA0	3	30	ADRS
PARA1	4	29	H IN
VCC	5	28	H-SAW
PARA2	6	27	VGEN
GND	7	26	VAGC
HTILT	8	25	IREF
PWM	9	24	SW0
DACO	10	23	SW1
DAC1	11	22	HAGC

CN961 8P :BTOB-S → TO NECK ASSY

Q.P.-	1	1	Q.P.-
Q.P.-	2	2	Q.P.-
Q.P.+	3	3	Q.P.+
Q.P.+	4	4	Q.P.+
E	5	5	E
E	6	6	E
VM	7	7	VM
VM	8	8	VM

NECK ASSY

QP QP VM

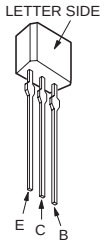
VM

KV-34FX200C 240K

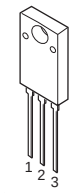
KV-38FX200 300K

6-4. SEMICONDUCTORS

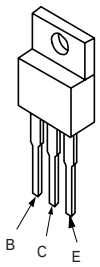
2SA1175-HFE
2SA933AS-QRT
2SC2785-HFE



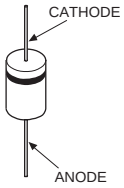
D10SC4MR



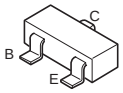
2SA1837
2SC4159-E
2SC4793
2SD2012



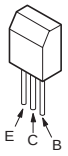
EGP20G
ERC06-15S



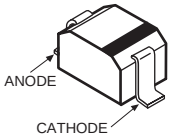
2SA1037K-T146-R
2SA1162-G
2SA1330-06
2SB709A
2SC1623-L5L6
2SD601A-Q



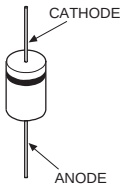
2SC3209LK



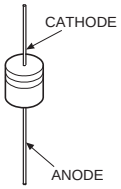
MA111
RD3.3SB
1SS355



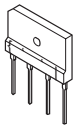
D1NL20
D2L20U
EL1Z
EGP30D
ERD29-08J
EZ0150AV1
GP08D
MTZJ-T-9110
MTZJ-33A
1SS83



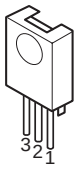
D1NS4
MTZJ-7.5B
MTZJ-T-77-13A
RD10ESB2
RD33ESB1
RD3.9ES-B1
RD3.9ES-B2
RD5.6ESB2
RD5.6ESB3
1SS119-25
1SS133T-77



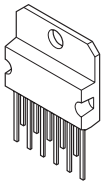
D10SBS4F
D6SB60L



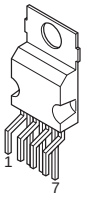
SBX1981-51



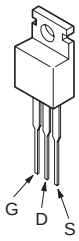
TDA7262



TDA8172



IRF614



SECTION 7
EXPLODED VIEWS

• Items with no part number and no description are not stocked because they are seldom required for routine service

• The component parts of an assembly are indicated by the reference numbers in the remarks column.

• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

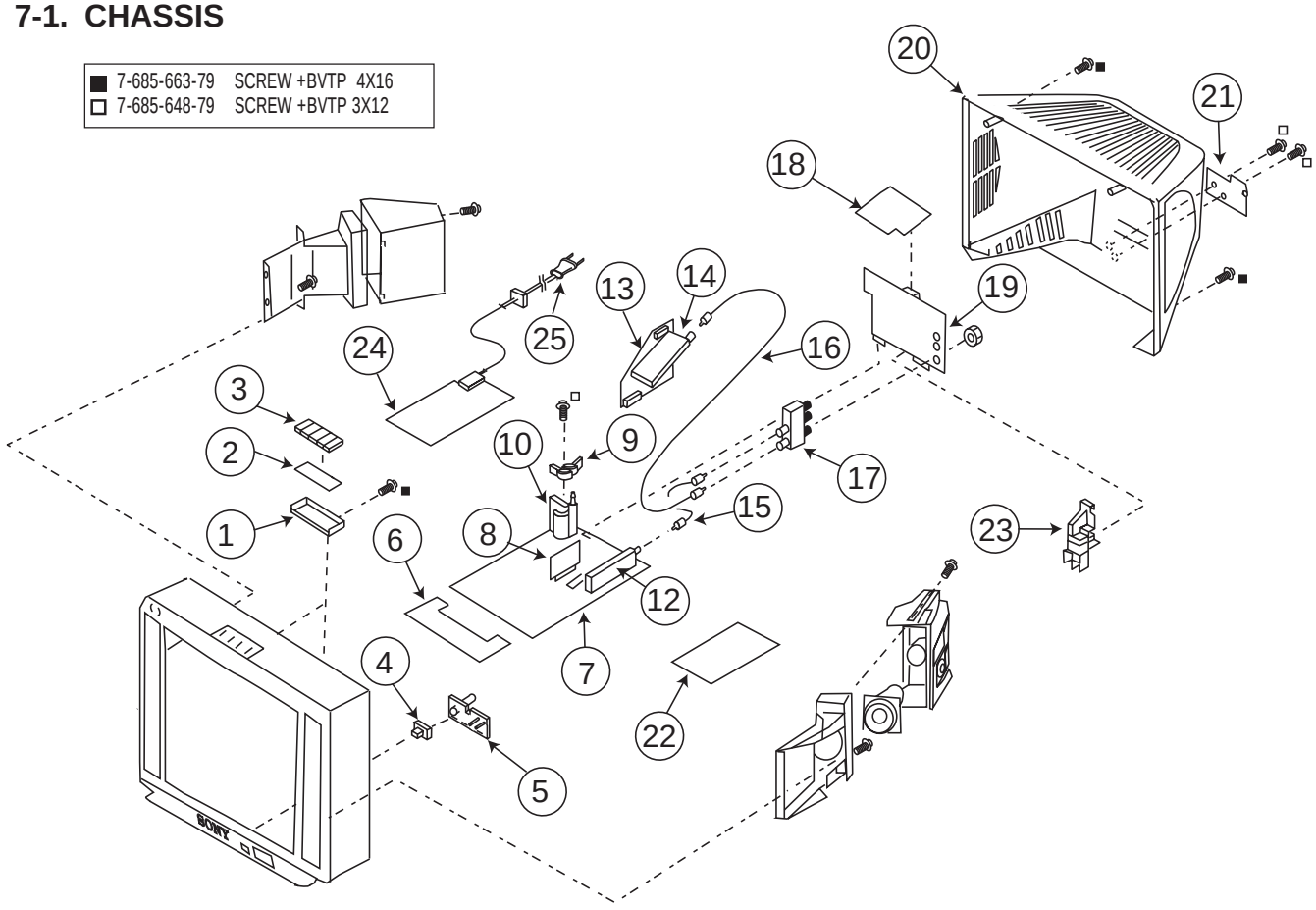
Note:

The components identified with gray shading and a critical symbol (⚠) are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

7-1. CHASSIS



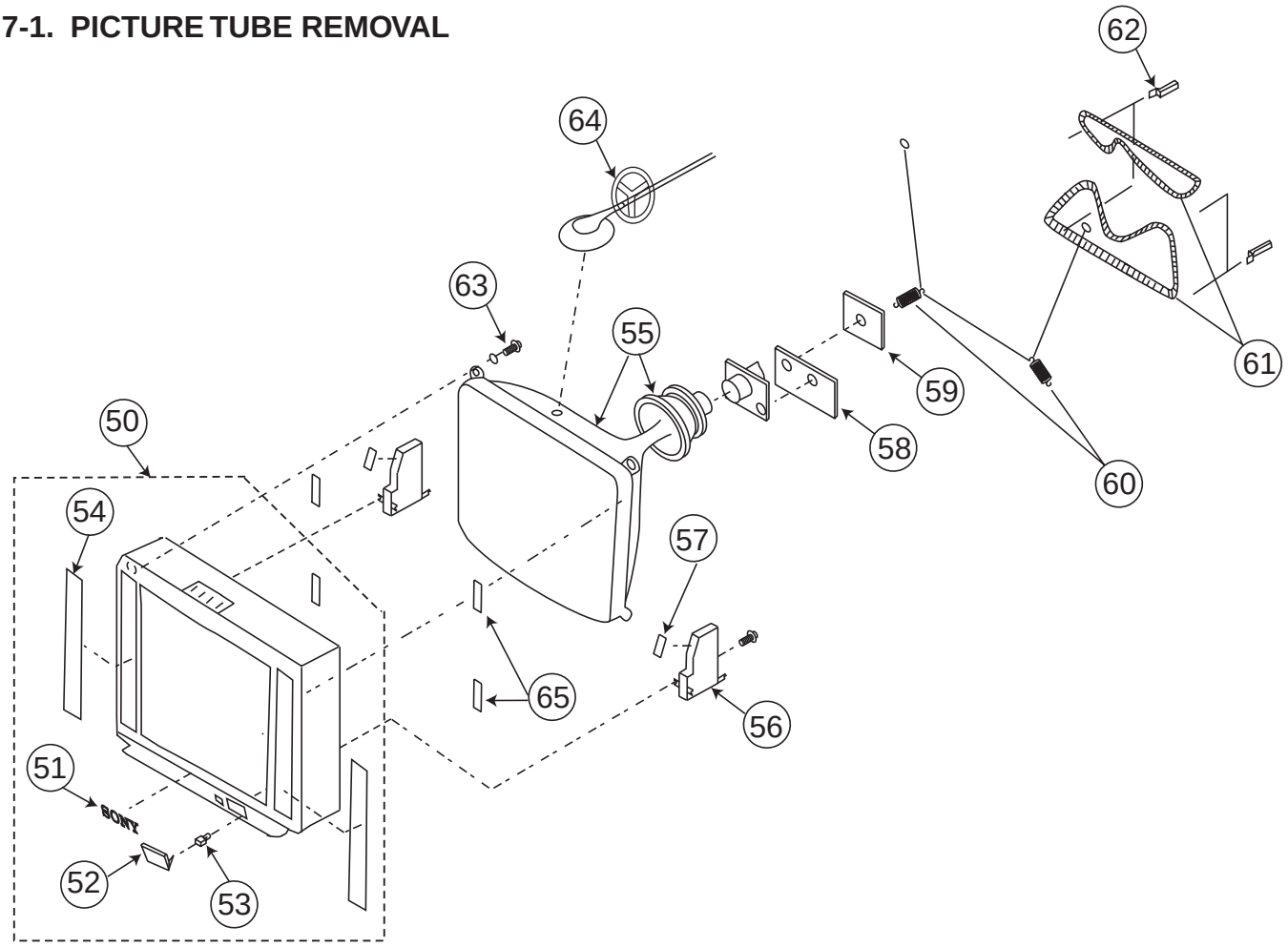
REF.NO.		PART NO.	DESCRIPTION	REMARK
1		4-065-415-01	BRACKET, HX	
2		A-1372-526-A	HX BOARD, MOUNTED	
3		4-065-414-01	BUTTON, MULTI	
4		4-064-809-01	FILTER, REMOTE	
5		4-064-808-01	GUIDE, LED	
6		A-1372-520-A	HF BOARD, MOUNTED	
7		A-1298-640-A	A BOARD, COMPLETE (KV-32XBR200)	
7		A-1298-677-A	A BOARD, COMPLETE (KV-36XBR200)	
8		A-1195-141-A	PX BOARD, COMPLETE	
9		4-065-883-01	HOLDER, FBT	
10	⚠	1-453-282-11	TRANSFORMER, FLYBACK (NX-4600//X4C) (KV-32XBR200)	
10	⚠	1-453-286-11	TRANSFORMER, FLYBACK (NX-4600//X4C4) (KV-36XBR200)	

REF.NO.		PART NO.	DESCRIPTION	REMARK
12	⚠	8-598-431-00	TUNER, FSS BTF-WA411	
13		A-1298-641-A	AX BOARD, COMPLETE	
14	⚠	8-598-430-00	TUNER, FSS BTF-FA401	
15		1-557-056-31	CABLE, P-P	
16		1-556-945-21	CABLE, P-P	
17		8-598-414-00	ANTENNA SWITCH AS-2F	
18		A-1135-902-A	BX BOARD, COMPLETE	
19		A-1394-907-A	UX BOARD, COMPLETE	
20		4-064-771-01	COVER, REAR (KV-32XBR200)	
20		4-065-905-01	COVER, REAR (KV-36XBR200)	
21		4-059-500-01	LABEL, ANTENNA	
22		A-1385-185-A	K BOARD, COMPLETE	
23		4-052-905-01	V5/6 BRACKET	
24		A-1316-397-A	G BOARD, COMPLETE	
25	⚠	1-751-059-11	CORD, POWER (WITH CONNECTOR) 10A/125V	

The components identified with gray shading and a critical symbol (⚠) are critical for safety. Replace only with part number specified.

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

7-1. PICTURE TUBE REMOVAL



REF.NO.		PART NO.	DESCRIPTION	REMARK
50		X-4035-962-1	BEZNET ASSY (KV-32XBR200)	51-54
50		X-4035-924-1	BEZNET ASSY (KV-36XBR200)	51-54
51		3-704-179-31	EMBLEM(NO.9), SONY	
52		4-064-807-01	DOOR, FRONT TERMINAL	
53		4-042-192-01	CATCHER, PUSH	
54		4-066-291-01	GRILLE, SPEAKER (KV-32XBR200)	
54		4-065-907-01	GRILLE, SPEAKER (KV-36XBR200)	
55	⚠	8-735-047-61	ITC 34RSN-A1 (KV-32XBR200)	
55	⚠	8-735-048-61	ITC 38RSN-A1 (KV-36XBR200)	
56		4-067-044-01	CRT, SUPPORT (KV-36XBR200)	
57		4-067-050-01	CUSHION, CRT SUPPORT	
58		A-1375-179-A	WA BOARD, MOUNTED (KV-32XBR200)	
58		A-1375-181-A	WA BOARD, MOUNTED (KV-36XBR200)	
59		A-1335-103-A	C BOARD,COMPLETE	
60		4-036-329-01	SPRING (B), TENSION	
61	⚠	1-416-827-11	COIL, DEGAUSSING (KV-32XBR200)	
61	⚠	1-416-828-11	COIL, DEGAUSSING (KV-36XBR200)	
62		4-065-895-01	HOLDER, DGC	
63		4-046-765-01	SCREW, TAPPING 7 + CROWN WASHER	
64		3-704-372-31	HOLDER, HV CABLE	
65		4-064-378-01	CUSHION (20MM), CRT	

SECTION 8
ELECTRICAL PARTS LIST

A

Note:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF = µF

INDUCTORS
- UH = µH, MMH = mH

When indicating parts by reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
A					
*	**A-1298-640-A**	**A BOARD, COMPLETE (KV-32XBR200)**			
*	**A-1298-677-A**	**A BOARD, COMPLETE (KV-36XBR200)**			
	4-382-854-11	**SCREW (M3X10), P, SW (+)**			
	CAPACITOR				
C001	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C003	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C005	1-126-960-11	ELECT	1MF	20%	50V
C009	1-104-664-11	ELECT	47MF	20%	25V
C010	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C012	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C013	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C014	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C023	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C028	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C029	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C030	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C035	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C036	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C037	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C038	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C039	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C040	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C051	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C053	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C056	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C061	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C062	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C063	1-126-941-11	ELECT	470MF	20%	25V
C071	1-164-096-11	CERAMIC	0.01MF		50V
C072	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C075	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C351	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C352	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C353	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C354	1-163-133-00	CERAMIC CHIP	470PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C355	1-126-959-11	ELECT	0.47MF	20%	50V
C356	1-126-963-11	ELECT	4.7MF	20%	50V
C357	1-126-959-11	ELECT	0.47MF	20%	50V
C358	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C359	1-104-665-11	ELECT	100MF	20%	25V
C360	1-126-959-11	ELECT	0.47MF	20%	50V
C361	1-126-959-11	ELECT	0.47MF	20%	50V
C362	1-126-959-11	ELECT	0.47MF	20%	50V
C363	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C364	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C365	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C366	1-130-495-00	FILM	0.1MF	5%	50V
C367	1-130-495-00	FILM	0.1MF	5%	50V
C368	1-130-495-00	FILM	0.1MF	5%	50V
C369	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C370	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C371	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C372	1-126-959-11	ELECT	0.47MF	20%	50V
C373	1-126-960-11	ELECT	1MF	20%	50V
C374	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C375	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C376	1-126-964-11	ELECT	10MF	20%	50V
C377	1-130-495-00	FILM	0.1MF	5%	50V
C378	1-136-244-11	FILM	0.1MF	5%	50V
C379	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C380	1-126-942-61	ELECT	1000MF	20%	25V
C381	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C382	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C383	1-130-495-00	FILM	0.1MF	5%	50V
C384	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C385	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C386	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C387	1-126-961-11	ELECT	2.2MF	20%	50V
C388	1-126-959-11	ELECT	0.47MF	20%	50V
C390	1-126-960-11	ELECT	1MF	20%	50V
C391	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C392	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C393	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C394	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C395	1-104-664-11	ELECT	47MF	20%	25V

A

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C397	1-104-664-11	ELECT	47MF	20%	25V
C398	1-126-961-11	ELECT	2.2MF	20%	50V
C501	1-102-110-00	CERAMIC	220PF	10%	50V
C502	1-126-959-11	ELECT	0.47MF	20%	50V
C503	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C504	1-102-228-00	CERAMIC	470PF	10%	500V
C505	1-102-228-00	CERAMIC	470PF	10%	500V
C506	1-106-383-00	MYLAR	0.047MF	10%	200V
C507 ⚠	1-162-116-00	CERAMIC	680PF	10%	2KV
C508	1-102-228-00	CERAMIC	470PF	10%	500V
C509	1-162-116-00	CERAMIC	680PF	10%	2KV
C510	1-137-150-11	MYLAR	0.01MF	10%	100V
C511 ⚠	1-137-347-11	FILM	0.022MF	3%	2KV
C512	1-129-928-00	FILM	0.0027MF	10%	630V
C513 ⚠	1-130-118-00	FILM	0.051MF	5%	400V
C514 ⚠	1-115-521-11	FILM	0.82MF	5%	250V
C515	1-106-343-00	MYLAR	0.001MF	10%	100V
C516	1-136-540-11	FILM	0.82MF	5%	200V
C517	1-107-649-11	ELECT	2.2MF	20%	250V
C518	1-106-395-00	MYLAR	0.068MF	10%	200V
C519	1-162-815-11	CERAMIC	47PF	5%	500V
C520	1-165-136-11	CERAMIC	3300PF	10%	500V
C521	1-163-010-11	CERAMIC CHIP	0.0012MF	10%	50V
C522	1-126-960-11	ELECT	1MF	20%	50V
C525	1-102-244-00	CERAMIC	220PF	10%	500V
C526	1-107-662-11	ELECT	22MF	20%	250V
C527	1-162-116-00	CERAMIC	680PF	10%	2KV
C528	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C529	1-128-551-11	ELECT	22MF	20%	25V
C530	1-137-366-11	FILM	0.0022MF	5%	50V
C531 ⚠	1-126-965-11	ELECT	22MF	20%	50V
C532 ⚠	1-126-965-11	ELECT	22MF	20%	50V
C537	1-126-941-11	ELECT	470MF	20%	25V
C539	1-126-941-11	ELECT	470MF	20%	25V
C540	1-104-710-11	ELECT	22MF	0	160V
C541	1-128-560-11	ELECT	22MF	20%	100V
C544	1-129-718-00	FILM	0.022MF	5%	630V
C545	1-106-387-00	MYLAR	0.068MF	10%	200V
C546	1-106-343-00	MYLAR	0.001MF	10%	100V
C547	1-106-343-00	MYLAR	0.001MF	10%	100V
C548	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C549	1-106-375-12	MYLAR	0.022MF	99%	200V
C550	1-102-002-00	CERAMIC	680PF	10%	500V (KV-32XBR200)
C550	1-102-157-00	CERAMIC	560PF	10%	500V (KV-36XBR200)
C551	1-109-954-11	ELECT	0.47MF	20%	160V
C552	1-102-244-00	CERAMIC	220PF	10%	500V
C553	1-117-665-11	FILM	0.33MF	5%	250V (KV-32XBR200)
C553	1-117-667-71	FILM	0.47MF	5%	250V (KV-36XBR200)
C554 ⚠	1-115-350-51	CERAMIC	0.0047MF		2KV
C561	1-126-967-11	ELECT	47MF	20%	50V
C563	1-104-666-11	ELECT	220MF	20%	25V
C564	1-126-960-11	ELECT	1MF	20%	50V
C565	1-126-969-11	ELECT	220MF	20%	50V
C568	1-136-169-00	FILM	0.22MF	5%	50V
C571	1-126-941-11	ELECT	470MF	20%	25V
C599	1-126-941-11	ELECT	470MF	20%	25V
C1002	1-126-964-11	ELECT	10MF	20%	50V
C1003	1-126-961-11	ELECT	2.2MF	20%	50V
C1004	1-126-960-11	ELECT	1MF	20%	50V
C1101	1-126-943-11	ELECT	2200MF	20%	25V
C1103	1-126-965-11	ELECT	22MF	20%	50V
C1104	1-104-664-11	ELECT	47MF	20%	25V
C1105	1-104-664-11	ELECT	47MF	20%	25V
C1106	1-126-964-11	ELECT	10MF	20%	50V
C1107	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C1108	1-128-551-11	ELECT	22MF	20%	25V
C1109	1-126-964-11	ELECT	10MF	20%	50V
C1110	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C1111	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C1112	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C1117	1-126-960-11	ELECT	1MF	20%	50V
C1118	1-126-960-11	ELECT	1MF	20%	50V
C1351	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1353	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C1355	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1356	1-126-964-11	ELECT	10MF	20%	50V
C1357	1-107-823-11	CERAMIC CHIP	0.47MF	10%	16V
C1358	1-126-940-11	ELECT	330MF	20%	25V
C1359	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1360	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1361	1-163-241-11	CERAMIC CHIP	39PF	5%	50V
C1362	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1363	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1367	1-104-664-11	ELECT	47MF	20%	25V
C1368	1-126-960-11	ELECT	1MF	20%	50V
C1369	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1370	1-126-964-11	ELECT	10MF	20%	50V
C1371	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1372	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1373	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1501 ⚠	1-117-659-71	FILM	0.1MF	5%	200V (KV-36XBR200 ONLY)

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

A

REF.NO.	PART NO.	DESCRIPTION	REMARK
	CONNECTOR		
CN270	1-573-298-11	CONNECTOR, BOARD TO BOARD 20P	
CN271*	1-691-616-21	CONNECTOR, BOARD TO BOARD 15P	
CN351*	1-564-509-11	PLUG, CONNECTOR 6P	
CN382*	1-564-507-11	PLUG, CONNECTOR 4P	
CN501*	1-580-798-11	CONNECTOR PIN (DY) 6P	
CN503*	1-564-508-11	PLUG, CONNECTOR 5P	
CN1001*	1-564-508-11	PLUG, CONNECTOR 5P	
CN1002*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1101	1-573-298-11	CONNECTOR, BOARD TO BOARD 20P	
CN1231*	1-564-512-11	PLUG, CONNECTOR 9P	
CN1461*	1-564-507-11	PLUG, CONNECTOR 4P	
CN1641*	1-564-515-11	PLUG, CONNECTOR 12P	
CN1643*	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN1941*	1-564-511-11	PLUG, CONNECTOR 8P	
CN1942*	1-564-509-11	PLUG, CONNECTOR 6P	
CN3001	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P	
CN3002	1-573-978-21	CONNECTOR, BOARD TO BOARD 11P	
	DIODE		
D001	8-719-991-33	DIODE 1SS133T-77	
D002	8-719-109-89	DIODE RD5.6ESB2	
D003	8-719-991-33	DIODE 1SS133T-77	
D004	8-719-110-17	DIODE RD10ESB2	
D011	8-719-109-72	DIODE RD3.9ESB2	
D012	8-719-991-33	DIODE 1SS133T-77	
D013	8-719-991-33	DIODE 1SS133T-77	
D014	8-719-991-33	DIODE 1SS133T-77	
D015	8-719-991-33	DIODE 1SS133T-77	
D353	8-719-991-33	DIODE 1SS133T-77	
D356	8-719-991-33	DIODE 1SS133T-77	
D360	8-719-110-17	DIODE RD10ESB2	
D362	8-719-991-33	DIODE 1SS133T-77	
D363	8-719-404-49	DIODE MA111	
D368	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-109-89	DIODE RD5.6ESB2	
D502	8-719-945-80	DIODE ERC06-15S	
D503	8-719-945-80	DIODE ERC06-15S	
D504	8-719-900-26	DIODE ERD29-08J	
D505	8-719-908-03	DIODE GP08D	
D506	8-719-908-03	DIODE GP08D	
D507	8-719-991-33	DIODE 1SS133T-77	
D510	8-719-300-33	DIODE RU-3AM	
D511	8-719-970-87	DIODE ERA38-06	
D512	8-719-970-87	DIODE ERA38-06	
D513	8-719-110-41	DIODE RD15ESB2	
D515	8-719-302-43	DIODE EL1Z	
D516	8-719-991-33	DIODE 1SS133T-77	
D518	8-719-991-33	DIODE 1SS133T-77	
D519 ⚠	8-719-302-43	DIODE EL1Z	
D520 ⚠	8-719-991-33	DIODE 1SS133T-77	
D521 ⚠	8-719-921-63	DIODE MTZJ-7.5B	
D522	8-719-991-33	DIODE 1SS133T-77	
D530	8-719-979-85	DIODE EGP20G	
D531	8-719-979-85	DIODE EGP20G	
D534	8-719-302-43	DIODE EL1Z	
D561	8-719-908-03	DIODE GP08D	
D1001	8-719-404-49	DIODE MA111	
D1002	8-719-404-49	DIODE MA111	
D1003	8-719-110-17	DIODE RD10ESB2	
D1004	8-719-110-17	DIODE RD10ESB2	
D1102	8-719-982-24	DIODE MTZJ-33A	
D1103	8-719-109-89	DIODE RD5.6ESB2	
D1104	8-719-110-17	DIODE RD10ESB2	
D1105	8-719-110-17	DIODE RD10ESB2	
D1301	8-719-404-49	DIODE MA111	
D1302	8-719-991-33	DIODE 1SS133T-77	
D1304	8-719-991-33	DIODE 1SS133T-77	
D1305	8-719-991-33	DIODE 1SS133T-77	
D1306	8-719-404-49	DIODE MA111	
	DELAY LINE		
DL351	1-416-231-11	DELAY LINE	
	FERRITE BEAD		
FB501	1-410-397-21	FERRITE 1.1UH	
FB502	1-410-397-21	FERRITE 1.1UH	
FB503	1-410-397-21	FERRITE 1.1UH	
	IC		
IC001	8-752-886-53	IC CXP85856A-001S	
IC002	8-759-353-44	IC ST24C08FM6TR	
IC351 ⚠	8-752-082-73	IC CXA2095S	
IC352	8-752-080-75	IC CXA2039M-T6	
IC353	8-759-462-91	IC TA1226N	
IC501 ⚠	8-759-700-07	IC NJM2903M	
IC561	8-759-192-71	IC STV9379	
IC1001	8-752-058-68	IC CXA1315M	
	CHIP CONDUCTOR		
JR001	1-216-295-91	SHORT 0	
JR002	1-216-295-91	SHORT 0	
JR003	1-216-295-91	SHORT 0	
JR052	1-216-295-91	SHORT 0	
JR053	1-216-295-91	SHORT 0	

A

REF.NO.	PART NO.	DESCRIPTION		REMARK
JR054	1-216-295-91	SHORT	0	
JR1003	1-216-295-91	SHORT	0	
JR4120	1-216-295-91	SHORT	0	
	COIL			
L001	1-410-482-31	INDUCTOR	100UH	
L002	1-410-482-31	INDUCTOR	100UH	
L003	1-410-470-11	INDUCTOR	10UH	
L004	1-410-470-11	INDUCTOR	10UH	
L351	1-410-476-11	INDUCTOR	33UH	
L352	1-410-482-31	INDUCTOR	100UH	
L502	1-412-552-11	INDUCTOR	2.2MMH	
L503	1-406-677-11	INDUCTOR	10MMH	
L504	1-406-677-11	INDUCTOR	10MMH	
L505	1-406-976-11	INDUCTOR	68UH	
L511	1-411-189-11	INDUCTOR	15MMH	
L517	1-412-552-11	INDUCTOR	2.2MMH	
L1101	1-410-482-31	INDUCTOR	100UH	
L1102	1-410-470-11	INDUCTOR	10UH	
L1351	1-410-682-31	INDUCTOR	470UH	
	TRANSISTOR			
Q001	8-729-216-22	TRANSISTOR 2SA1162-G		
Q002	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q003	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q004	8-729-216-22	TRANSISTOR 2SA1162-G		
Q005	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q010	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q011	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q012	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q013	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q014	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q015	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q016	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q017	8-729-216-22	TRANSISTOR 2SA1162-G		
Q304	8-729-216-22	TRANSISTOR 2SA1162-G		
Q305	8-729-216-22	TRANSISTOR 2SA1162-G		
Q306	8-729-216-22	TRANSISTOR 2SA1162-G		
Q351	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q354	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q356	8-729-216-22	TRANSISTOR 2SA1162-G		
Q357	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q358	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q359	8-729-216-22	TRANSISTOR 2SA1162-G		
Q360	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q361	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q362	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q363	8-729-216-22	TRANSISTOR 2SA1162-G		
Q364	8-729-216-22	TRANSISTOR 2SA1162-G		
Q365	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q366	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q367	8-729-216-22	TRANSISTOR 2SA1162-G		
Q368	8-729-216-22	TRANSISTOR 2SA1162-G		
Q369	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q370	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q501	8-729-140-50	TRANSISTOR 2SC3209LK		
Q502	8-729-045-26	TRANSISTOR 2SD2580-CA		
Q503	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q504	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q507	8-729-043-95	TRANSISTOR 2SC3840(3)		
Q511	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q512	8-729-809-29	TRANSISTOR 2SC4159-E		
Q561	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q562	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q1001	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q1102	8-729-119-78	TRANSISTOR 2SC2785-HFE		
Q1103	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q1351	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q1352	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q1353	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1354	8-729-422-27	TRANSISTOR 2SD601A-Q		
	RESISTOR			
R001	1-216-057-00	RES, CHIP	2.2K	5% 1/10W
R002	1-216-049-91	RES, CHIP	1K	5% 1/10W
R003	1-216-097-91	RES, CHIP	100K	5% 1/10W
R004	1-216-121-91	RES, CHIP	1M	5% 1/10W
R006	1-247-815-91	CARBON	220	5% 1/4W
R007	1-216-073-00	RES, CHIP	10K	5% 1/10W
R008	1-247-815-91	CARBON	220	5% 1/4W
R009	1-216-073-00	RES, CHIP	10K	5% 1/10W
R010	1-216-041-00	RES, CHIP	470	5% 1/10W
R011	1-216-065-91	RES, CHIP	4.7K	5% 1/10W
R012	1-216-033-00	RES, CHIP	220	5% 1/10W
R013	1-216-065-91	RES, CHIP	4.7K	5% 1/10W
R014	1-216-065-91	RES, CHIP	4.7K	5% 1/10W
R015	1-216-073-00	RES, CHIP	10K	5% 1/10W
R016	1-216-073-00	RES, CHIP	10K	5% 1/10W
R019	1-249-425-11	CARBON	4.7K	5% 1/4W
R020	1-216-065-91	RES, CHIP	4.7K	5% 1/10W
R022	1-249-429-11	CARBON	10K	5% 1/4W
R023	1-216-089-91	RES, CHIP	47K	5% 1/10W
R025	1-216-033-00	RES, CHIP	220	5% 1/10W
R026	1-216-121-91	RES, CHIP	1M	5% 1/10W
R028	1-249-429-11	CARBON	10K	5% 1/4W

A

REF.NO.	PART NO.	DESCRIPTION		REMARK		
R029	1-216-025-91	RES, CHIP	100	5%	1/10W	
R030	1-249-425-11	CARBON	4.7K	5%	1/4W	
R031	1-247-815-91	CARBON	220	5%	1/4W	
R032	1-247-815-91	CARBON	220	5%	1/4W	
R036	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R037	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R038	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R039	1-247-807-31	CARBON	100	5%	1/4W	
R040	1-247-815-91	CARBON	220	5%	1/4W	
R041	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R042	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R043	1-216-033-00	RES, CHIP	220	5%	1/10W	
R044	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R045	1-247-815-91	CARBON	220	5%	1/4W	
R046	1-247-815-91	CARBON	220	5%	1/4W	
R047	1-249-417-11	CARBON	1K	5%	1/4W	
R048	1-249-417-11	CARBON	1K	5%	1/4W	
R049	1-249-417-11	CARBON	1K	5%	1/4W	
R052	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R053	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R054	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R055	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R056	1-216-033-00	RES, CHIP	220	5%	1/10W	
R057	1-249-417-11	CARBON	1K	5%	1/4W	
R058	1-216-041-00	RES, CHIP	470	5%	1/10W	
R064	1-247-815-91	CARBON	220	5%	1/4W	
R065	1-247-815-91	CARBON	220	5%	1/4W	
R066	1-247-815-91	CARBON	220	5%	1/4W	
R067	1-249-413-11	CARBON	470	5%	1/4W	
R068	1-247-815-91	CARBON	220	5%	1/4W	
R069	1-247-815-91	CARBON	220	5%	1/4W	
R070	1-249-421-11	CARBON	2.2K	5%	1/4W	
R071	1-247-815-91	CARBON	220	5%	1/4W	
R072	1-216-033-00	RES, CHIP	220	5%	1/10W	
R073	1-216-033-00	RES, CHIP	220	5%	1/10W	
R074	1-216-033-00	RES, CHIP	220	5%	1/10W	
R075	1-216-033-00	RES, CHIP	220	5%	1/10W	
R076	1-216-033-00	RES, CHIP	220	5%	1/10W	
R077	1-216-033-00	RES, CHIP	220	5%	1/10W	
R078	1-249-417-11	CARBON	1K	5%	1/4W	
R079	1-216-033-00	RES, CHIP	220	5%	1/10W	
R080	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R081	1-216-025-91	RES, CHIP	100	5%	1/10W	
R082	1-216-025-91	RES, CHIP	100	5%	1/10W	
R083	1-249-429-11	CARBON	10K	5%	1/4W	
R084	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R087	1-247-815-91	CARBON	220	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION		REMARK		
R090	1-216-033-00	RES, CHIP	220	5%	1/10W	
R092	1-249-429-11	CARBON	10K	5%	1/4W	
R093	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R097	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R099	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R131	1-216-037-00	RES, CHIP	330	5%	1/10W	
R132	1-216-113-00	RES, CHIP	470K	5%	1/10W	
R133	1-216-037-00	RES, CHIP	330	5%	1/10W	
R135	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R136	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R137	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R319	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R320	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R321	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R324	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R328	1-216-295-91	SHORT	0			
R333	1-216-295-91	SHORT	0			
R336	1-249-387-11	CARBON	3.3	5%	1/4W	F
R337	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R346	1-208-806-11	RES, CHIP	10K	0.50%	1/10W	
R347	1-216-025-91	RES, CHIP	100	5%	1/10W	
R348	1-249-389-11	CARBON	4.7	5%	1/4W	F
R350	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R352	1-208-803-11	RES, CHIP	7.5K	0.50%	1/10W	
R353	1-208-788-11	RES, CHIP	1.8K	0.50%	1/10W	
R354	1-216-077-00	RES, CHIP	15K	5%	1/10W	
R355	1-216-033-00	RES, CHIP	220	5%	1/10W	
R356	1-216-033-00	RES, CHIP	220	5%	1/10W	
R358	1-247-815-91	CARBON	220	5%	1/4W	
R359	1-247-815-91	CARBON	220	5%	1/4W	
R360	1-247-815-91	CARBON	220	5%	1/4W	
R361	1-216-025-91	RES, CHIP	100	5%	1/10W	
R362	1-216-025-91	RES, CHIP	100	5%	1/10W	
R363	1-216-025-91	RES, CHIP	100	5%	1/10W	
R364	1-208-836-11	RES, CHIP	180K	0.50%	1/10W	
R365	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R366	1-216-085-00	RES, CHIP	33K	5%	1/10W	
R367	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R368	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R369	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R370	1-249-417-11	CARBON	1K	5%	1/4W	
R371	1-216-053-00	RES, CHIP	1.5K	5%	1/10W	
R372	1-216-113-00	RES, CHIP	470K	5%	1/10W	
R373	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R374	1-216-276-00	RES, CHIP	1.8M	5%	1/8W	
R375	1-216-025-91	RES, CHIP	100	5%	1/10W	
R376	1-216-073-00	RES, CHIP	10K	5%	1/10W	

A

Note:
The compananents identified by ⊠ in this manual have been carefully factory selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Note:
The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:
Les composants identifies per un trame et une marque ⚠sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R378	1-216-083-00	RES, CHIP	27K	5%	1/10W
R379	1-216-033-00	RES, CHIP	220	5%	1/10W
R380	1-247-815-91	CARBON	220	5%	1/4W
R381	1-247-815-91	CARBON	220	5%	1/4W
R382	1-216-037-00	RES, CHIP	330	5%	1/10W
R383	1-216-049-91	RES, CHIP	1K	5%	1/10W
R384	1-216-109-00	RES, CHIP	330K	5%	1/10W
R385	1-249-421-11	CARBON	2.2K	5%	1/4W
R386	1-216-049-91	RES, CHIP	1K	5%	1/10W
R387 ⚠	1-216-049-91	RES, CHIP	1K	5%	1/10W
R388	1-216-089-91	RES, CHIP	47K	5%	1/10W
R389	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R390	1-216-041-00	RES, CHIP	470	5%	1/10W
R391	1-208-810-11	RES, CHIP	15K	0.50%	1/10W
R392	1-216-025-91	RES, CHIP	100	5%	1/10W
R393	1-216-041-00	RES, CHIP	470	5%	1/10W
R394	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R395	1-216-061-00	RES, CHIP	3.3K	5%	1/10W
R396	1-249-417-11	CARBON	1K	5%	1/4W
R397	1-247-843-11	CARBON	3.3K	5%	1/4W
R398	1-216-095-00	RES, CHIP	82K	5%	1/10W
R501	1-216-041-00	RES, CHIP	470	5%	1/10W
R502	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R503	1-249-425-11	CARBON	4.7K	5%	1/4W F
R504 ⚠	1-216-455-21	METAL OXIDE	560	5%	2W F
R505	1-247-863-91	CARBON	22K	5%	1/4W
R506	1-215-861-00	METAL OXIDE	47	5%	1W F
R507	1-249-401-11	CARBON	47	5%	1/4W
R508	1-249-425-11	CARBON	4.7K	5%	1/4W
R509	1-260-324-11	CARBON	470	5%	1/2W
R510 ⚠	1-215-860-11	METAL OXIDE	33	5%	1W F
R511 ⚠	1-215-885-00	METAL OXIDE	68	5%	2W F
					(KV-32XBR200)
R511 ⚠	1-215-886-00	METAL OXIDE	100	5%	2W F
					(KV-36XBR200)
R512 ⚠	1-215-886-11	METAL OXIDE	100	5%	2W F
R514	1-216-081-00	RES, CHIP	22K	5%	1/10W
R515	1-208-812-11	RES, CHIP	18K	0.50%	1/10W
R516	1-208-790-11	RES, CHIP	2.2K	0.50%	1/10W
R517	1-249-417-11	CARBON	1K	5%	1/4W
R518	1-216-073-00	RES, CHIP	10K	5%	1/10W
R519	1-249-413-11	CARBON	470	5%	1/4W
R521	1-216-081-00	RES, CHIP	22K	5%	1/10W
R522	1-215-886-11	METAL OXIDE	100	5%	2W F
R523	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R524	1-249-429-11	CARBON	10K	5%	1/4W
R525	1-208-804-11	RES, CHIP	8.2K	0.50%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R527	1-216-097-91	RES, CHIP	100K	5%	1/10W
R528	1-208-814-11	RES, CHIP	22K	0.50%	1/10W
R529 ⚠	1-208-814-11	RES, CHIP	22K	0.50%	1/10W
⊠ R530 ⚠	1-208-808-11	RES, CHIP	12K	0.50%	1/10W
⊠ R531 ⚠	1-208-824-11	RES, CHIP	56K	0.50%	1/10W
R532 ⚠	1-208-760-11	RES, CHIP	120	0.50%	1/10W
R533 ⚠	1-215-879-11	METAL OXIDE	47K	5%	1W F
					(KV-32XBR200)
R533 ⚠	1-215-878-00	METAL OXIDE	33K	5%	1W F
					(KV-36XBR200)
R535	1-208-840-11	RES, CHIP	270K	0.50%	1/10W
R536 ⚠	1-260-288-11	CARBON	0.47	5%	1/2W
R537 ⚠	1-260-288-11	CARBON	0.47	5%	1/2W
R538	1-247-887-00	CARBON	220K	5%	1/4W
R539 ⚠	1-215-891-11	METAL OXIDE	680	5%	2W F
R541	1-215-922-11	METAL OXIDE	6.8K	5%	3W F
					(KV-32XBR200)
R541	1-215-919-11	METAL OXIDE	2.2K	5%	3W F
					(KV-36XBR200)
R542	1-215-921-11	METAL OXIDE	4.7K	5%	3W F
R543 ⚠	1-249-377-11	CARBON	0.47	5%	1/4W F
R544	1-216-113-00	RES, CHIP	470K	5%	1/10W
R545	1-249-387-11	CARBON	3.3	5%	1/4W F
R546	1-215-453-00	METAL	22K	1%	1/4W
R547	1-215-457-00	METAL	33K	1%	1/4W
R548	1-215-921-11	METAL OXIDE	4.7K	5%	3W F
R549	1-215-437-00	METAL	4.7K	1%	1/4W
R550 ⚠	1-249-377-11	CARBON	0.47	5%	1/4W F
R551 ⚠	1-215-873-00	METAL OXIDE	4.7K	5%	1W F
R552 ⚠	1-216-455-21	METAL OXIDE	560	5%	2W F
R553 ⚠	1-249-377-11	CARBON	0.47	5%	1/4W F
R554	1-215-894-11	METAL OXIDE	2.2K	5%	2W F
R555	1-249-441-11	CARBON	100K	5%	1/4W
R556	1-249-441-11	CARBON	100K	5%	1/4W
R557	1-249-441-11	CARBON	100K	5%	1/4W
R560	1-215-922-11	METAL OXIDE	6.8K	5%	3W F
					(KV-32XBR200)
R560	1-215-919-11	METAL OXIDE	2.2K	5%	3W F
					(KV-36XBR200)
R561	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R563	1-216-349-00	METAL OXIDE	1	5%	1W F
R564	1-215-373-31	METAL	10	1%	1/4W
R565	1-215-889-00	METAL OXIDE	330	5%	2W F
R566	1-208-802-11	RES, CHIP	6.8K	0.50%	1/10W
R567	1-249-385-11	CARBON	2.2	5%	1/4W F
R568	1-208-802-11	RES, CHIP	6.8K	0.50%	1/10W
R569	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R570	1-216-097-91	RES, CHIP	100K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION		REMARK		
R571	1-216-081-00	RES, CHIP	22K	5%	1/10W	
R572	1-216-081-00	RES, CHIP	22K	5%	1/10W	
R573	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R580	1-249-441-11	CARBON	100K	5%	1/4W	
R1001	1-247-807-31	CARBON	100	5%	1/4W	
R1002	1-247-807-31	CARBON	100	5%	1/4W	
R1003	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R1004	1-216-067-00	RES, CHIP	5.6K	5%	1/10W	
R1005	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R1006	1-247-807-31	CARBON	100	5%	1/4W	
R1007	1-247-807-31	CARBON	100	5%	1/4W	
R1008	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R1009	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R1010	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1011	1-249-387-11	CARBON	3.3	5%	1/4W	F
R1012	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1101	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1102	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R1103	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1104	1-216-083-00	RES, CHIP	27K	5%	1/10W	
R1105	1-216-689-11	RES, CHIP	39K	5%	1/10W	
R1106	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1107	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R1108	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R1109	1-216-017-91	RES, CHIP	47	5%	1/10W	
R1110	1-216-017-91	RES, CHIP	47	5%	1/10W	
R1111	1-216-017-91	RES, CHIP	47	5%	1/10W	
R1113	1-249-417-11	CARBON	1K	5%	1/4W	
R1114	1-249-417-11	CARBON	1K	5%	1/4W	
R1115	1-216-041-00	RES, CHIP	470	5%	1/10W	
R1117	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1118	1-249-425-11	CARBON	4.7K	5%	1/4W	
R1120	1-216-057-00	RES, CHIP	2.2K	5%	1/10W	
R1121	1-216-037-00	RES, CHIP	330	5%	1/10W	
R1122	1-216-113-00	RES, CHIP	470K	5%	1/10W	
R1123	1-216-037-00	RES, CHIP	330	5%	1/10W	
R1125	1-216-057-00	RES, CHIP	2.2K	5%	1/10W	
R1126	1-216-037-00	RES, CHIP	330	5%	1/10W	
R1127	1-216-113-00	RES, CHIP	470K	5%	1/10W	
R1128	1-216-037-00	RES, CHIP	330	5%	1/10W	
R1129	1-216-295-91	SHORT	0			
R1130	1-216-057-00	RES, CHIP	2.2K	5%	1/10W	
R1301	1-249-401-11	CARBON	47	5%	1/4W	
R1302	1-249-401-11	CARBON	47	5%	1/4W	
R1303	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1304	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1305	1-216-091-00	RES, CHIP	56K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION		REMARK		
R1306	1-216-081-00	RES, CHIP	22K	5%	1/10W	
R1307	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1308	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1309	1-216-051-00	RES, CHIP	1.2K	5%	1/10W	
R1310	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1311	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1312	1-216-057-00	RES, CHIP	2.2K	5%	1/10W	
R1313	1-208-780-11	RES, CHIP	820	0.50%	1/10W	
R1314	1-208-782-11	RES, CHIP	1K	0.50%	1/10W	
R1315	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1316	1-216-091-00	RES, CHIP	56K	5%	1/10W	
R1317	1-216-105-91	RES, CHIP	220K	5%	1/10W	
R1318	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R1319	1-260-290-71	CARBON	0.68	5%	1/2W	
R1322	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R1323	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R1326	1-249-417-11	CARBON	1K	5%	1/4W	
R1329	1-216-295-91	SHORT	0			
R1330	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R1333	1-216-065-91	RES, CHIP	4.7K	5%	1/10W	
R1337	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1351	1-247-815-91	CARBON	220	5%	1/4W	
R1352	1-247-815-91	CARBON	220	5%	1/4W	
R1353	1-247-815-91	CARBON	220	5%	1/4W	
R1354	1-216-033-00	RES, CHIP	220	5%	1/10W	
R1355	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1356	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1357	1-216-025-91	RES, CHIP	100	5%	/10W	
R1358	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1359	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1360	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1361	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1362	1-216-113-00	RES, CHIP	470K	5%	1/10W	
R1363	1-216-057-00	RES, CHIP	2.2K	5%	1/10W	
R1364	1-216-097-91	RES, CHIP	100K	5%	1/10W	
R1365	1-216-089-91	RES, CHIP	47K	5%	1/10W	
R1366	1-216-107-00	RES, CHIP	270K	5%	1/10W	
R1369	1-216-093-00	RES, CHIP	68K	5%	1/10W	
R1371	1-216-295-91	SHORT	0			
R1373	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1374	1-216-089-91	RES, CHIP	47K	5%	1/10W	
R1385	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1386	1-216-049-91	RES, CHIP	1K	5%	1/10W	
R1387	1-249-429-11	CARBON	10K	5%	1/4W	
R1388	1-216-073-00	RES, CHIP	10K	5%	1/10W	
R1389	1-216-025-91	RES, CHIP	100	5%	1/10W	
R1390	1-249-417-11	CARBON	1K	5%	1/4W	

A AX

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1391	1-216-091-00	RES, CHIP	56K	5%	1/10W
R1392	1-216-081-00	RES, CHIP	22K	5%	1/10W
R1393	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1394	1-208-785-11	RES, CHIP	1.3K	0.50%	1/10W
R1395	1-208-782-11	RES, CHIP	1K	0.50%	1/10W
R1396	1-216-025-91	RES, CHIP	100	5%	1/10W
R1397	1-216-025-91	RES, CHIP	100	5%	1/10W
R1398	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R1399	1-216-049-91	RES, CHIP	1K	5%	1/10W
		SWITCH			
S501	1-572-707-11	SWITCH, LEVER			
S502	1-572-707-11	SWITCH, LEVER			
		TRANSFORMER			
T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T502 ⚠	1-426-981-11	TRANSFORMER, FERRITE (PMT)			
T503 ⚠	1-453-282-11	TRANSFORMER, FLYBACK			(KV-32XBR200)
T503 ⚠	1-453-286-11	TRANSFORMER, FLYBACK			(KV-36XBR200)
T504	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS			
T505 ⚠	1-429-188-11	TRANSFORMER, HORIZONTAL LINEAR			
		TUNER			
TU102 ⚠	8-598-431-00	TUNER, FSS BTF-WA411			
		CRYSTAL			
X001	1-578-774-11	VIBRATOR, CRYSTAL			
X353	1-567-505-11	OSCILLATOR, CRYSTAL			
X354	1-579-583-11	VIBRATOR, CERAMIC			

AX

*	**A-1298-641-A**	**AX BOARD, COMPLETE**			
		CAPACITOR			
C101	1-126-960-11	ELECT	1MF	20%	50V
C102	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C104	1-126-964-11	ELECT	10MF	20%	50V
C106	1-104-664-11	ELECT	47MF	20%	25V
C108	1-126-942-61	ELECT	1000MF	20%	25V
C109	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C110	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C111	1-126-960-11	ELECT	1MF	20%	50V
C113	1-104-666-11	ELECT	220MF	20%	25V
C115	1-126-960-11	ELECT	1MF	20%	50V
C1904	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1905	1-126-964-11	ELECT	10MF	20%	50V
C1906	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1907	1-126-964-11	ELECT	10MF	20%	50V
C1908	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1909	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1910	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1911	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1912	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
		CONNECTOR			
CN101	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P			
CN102	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P			
CN103 *	1-564-507-11	PLUG, CONNECTOR 4P			
		DIODE			
D101	8-719-109-89	DIODE RD5.6ESB2			
D103	8-719-991-33	DIODE 1SS133T-77			
D104	8-719-991-33	DIODE 1SS133T-77			
D105	8-719-991-33	DIODE 1SS133T-77			
D106	8-719-991-33	DIODE 1SS133T-77			
D107	8-719-991-33	DIODE 1SS133T-77			
D108	8-719-110-17	DIODE RD10ESB2			
D109	8-719-110-17	DIODE RD10ESB2			
		IC			
IC1901	8-752-058-68	IC CXA1315M			
IC1902	8-759-470-63	IC NJM2145M-TE2			
		CHIP CONDUCTOR			
JR101	1-216-295-91	SHORT	0		
JR1901	1-216-295-91	SHORT	0		
		COIL			
L102	1-410-470-11	INDUCTOR	10UH		
L105	1-410-482-31	INDUCTOR	100UH		
		TRANSISTOR			
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q103	8-729-216-22	TRANSISTOR 2SA1162-G			
Q104	8-729-216-22	TRANSISTOR 2SA1162-G			
Q105	8-729-216-22	TRANSISTOR 2SA1162-G			
Q106	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q1902	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1903	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1918	8-729-216-22	TRANSISTOR 2SA1162-G			

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

AX **BX**

REF.NO.	PART NO.	DESCRIPTION			REMARK
	RESISTOR				
R101	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R102	1-216-083-00	RES, CHIP	27K	5%	1/10W
R103	1-216-689-11	RES, CHIP	39K	5%	1/10W
R104	1-216-049-91	RES, CHIP	1K	5%	1/10W
R106	1-216-081-00	RES, CHIP	22K	5%	1/10W
R107	1-216-081-00	RES, CHIP	22K	5%	1/10W
R108	1-216-081-00	RES, CHIP	22K	5%	1/10W
R109	1-216-081-00	RES, CHIP	22K	5%	1/10W
R112	1-249-421-11	CARBON	2.2K	5%	1/4W
R113	1-216-097-91	RES, CHIP	100K	5%	1/10W
R114	1-216-121-91	RES, CHIP	1M	5%	1/10W
R115	1-216-073-00	RES, CHIP	10K	5%	1/10W
R116	1-216-073-00	RES, CHIP	10K	5%	1/10W
R117	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1905	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1906	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1920	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2904	1-216-033-00	RES, CHIP	220	5%	1/10W
R2905	1-216-033-00	RES, CHIP	220	5%	1/10W
R2909	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2910	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2912	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R2913	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2914	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2915	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2916	1-216-073-00	RES, CHIP	10K	5%	1/10W
	TUNER				
TU101 ⚠	8-598-430-00	TUNER, FSSBTF-FA401			

BX

*	**A-1135-902-A**	**BX BOARD, COMPLETE**			
	CAPACITOR				
C3701	1-104-664-11	ELECT	47MF	20%	25V
C3703	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3704	1-104-664-11	ELECT	47MF	20%	25V
C3706	1-104-664-11	ELECT	47MF	20%	25V
C3707	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3708	1-104-664-11	ELECT	47MF	20%	25V
C3709	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3710	1-104-664-11	ELECT	47MF	20%	25V
C3711	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3712	1-126-961-11	ELECT	2.2MF	20%	50V
C3713	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3722	1-126-959-11	ELECT	0.47MF	20%	50V
C3723	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C3724	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3725	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3727	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3728	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C3729	1-126-963-11	ELECT	4.7MF	20%	50V
C3730	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C3731	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3732	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C3733	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3734	1-126-964-11	ELECT	10MF	20%	50V
C3735	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3736	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3737	1-126-964-11	ELECT	10MF	20%	50V
C3739	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3741	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C3742	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3743	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C3744	1-163-011-11	CERAMIC CHIP	0.0015MF	10%	50V
C3745	1-126-963-11	ELECT	4.7MF	20%	50V
C3746	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3747	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3755	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3756	1-104-664-11	ELECT	47MF	20%	25V
C3758	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3759	1-104-664-11	ELECT	47MF	20%	25V
C3763	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3764	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3766	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3768	1-126-964-11	ELECT	10MF	20%	50V
C3770	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3771	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3772	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3773	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3774	1-126-964-11	ELECT	10MF	20%	50V
C3775	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3776	1-126-964-11	ELECT	10MF	20%	50V
C3777	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3778	1-104-664-11	ELECT	47MF	20%	25V
C3779	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3780	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3781	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3782	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3784	1-163-038-91	CERAMIC CHIP	0.1MF		25V

BX

REF.NO.	PART NO.	DESCRIPTION			REMARK
C3785	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3786	1-126-964-11	ELECT	10MF	20%	50V
C3787	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3788	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3789	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3790	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3791	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3792	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3827	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3828	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3829	1-126-964-11	ELECT	10MF	20%	50V
C3830	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3831	1-126-964-11	ELECT	10MF	20%	50V
C3832	1-126-964-11	ELECT	10MF	20%	50V
C3833	1-126-964-11	ELECT	10MF	20%	50V
C3834	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3835	1-126-960-11	ELECT	1MF	20%	50V
C3836	1-128-551-11	ELECT	22MF	20%	25V

CONNECTOR

CN3701	1-573-978-21	CONNECTOR, BOARD TO BOARD 11P
CN3702	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P

DIODE

D3704	8-719-404-49	DIODE MA111
D3705	8-719-404-49	DIODE MA111
D3706	8-719-404-49	DIODE MA111
D3707	8-719-404-49	DIODE MA111
D3708	8-719-404-49	DIODE MA111

FERRITE BEAD

FB3702	1-216-295-91	SHORT	0
FB3703	1-216-295-91	SHORT	0
FB3706	1-216-295-91	SHORT	0
FB3707	1-216-295-91	SHORT	0
FB3708	1-216-295-91	SHORT	0

FILTER

FL3702	1-239-847-11	FILTER, LOW PASS
FL3704	1-239-847-11	FILTER, LOW PASS
FL3705	1-239-847-11	FILTER, LOW PASS
FL3706	1-236-101-11	ENCAPSULATED COMPONENT
FL3707	1-236-101-11	ENCAPSULATED COMPONENT

IC

IC3702	8-759-701-56	IC NJM78M05FA
IC3703	8-759-445-59	IC BA033T
IC3705	8-759-296-53	IC UPC1862GS-E2
IC3707	8-759-444-12	IC UPD6488GF-3BA
IC3708	8-759-429-95	IC MN47V76ST1
IC3709	8-759-422-80	IC MN47V77ST1

CHIP CONDUCTOR

JR3701	1-216-295-91	SHORT	0
JR3708	1-216-295-91	SHORT	0
JR3710	1-216-295-91	SHORT	0
JR3712	1-216-295-91	SHORT	0
JR3714	1-216-295-91	SHORT	0

COIL

L3701	1-410-470-11	INDUCTOR	10UH
L3702	1-410-470-11	INDUCTOR	10UH
L3706	1-410-470-11	INDUCTOR	10UH
L3708	1-410-470-11	INDUCTOR	10UH
L3709	1-410-466-41	INDUCTOR	4.7UH
L3714	1-410-470-11	INDUCTOR	10UH

TRANSISTOR

Q3701	8-729-216-22	TRANSISTOR 2SA1162-G
Q3702	8-729-216-22	TRANSISTOR 2SA1162-G
Q3703	8-729-422-27	TRANSISTOR 2SD601A-Q
Q3707	8-729-422-27	TRANSISTOR 2SD601A-Q
Q3708	8-729-216-22	TRANSISTOR 2SA1162-G
Q3709	8-729-216-22	TRANSISTOR 2SA1162-G
Q3719	8-729-422-27	TRANSISTOR 2SD601A-Q
Q3724	8-729-422-27	TRANSISTOR 2SD601A-Q
Q3725	8-729-216-22	TRANSISTOR 2SA1162-G
Q3728	8-729-216-22	TRANSISTOR 2SA1162-G
Q3729	8-729-216-22	TRANSISTOR 2SA1162-G
Q3731	8-729-422-27	TRANSISTOR 2SD601A-Q
Q3732	8-729-216-22	TRANSISTOR 2SA1162-G
Q3733	8-729-422-27	TRANSISTOR 2SD601A-Q
Q3734	8-729-422-27	TRANSISTOR 2SD601A-Q

RESISTOR

R3701	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3702	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3703	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3704	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3705	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3706	1-208-750-11	RES, CHIP	47	0.50%	1/10W
R3707	1-208-762-11	RES, CHIP	150	0.50%	1/10W
R3708	1-216-043-91	RES, CHIP	560	5%	1/10W
R3709	1-216-075-00	RES, CHIP	12K	5%	1/10W
R3710	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3711	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3717	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3718	1-216-049-91	RES, CHIP	1K	5%	1/10W

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

BX C

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R3719	1-208-770-11	RES, CHIP	330	0.50%	1/10W
R3720	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3746	1-216-041-00	RES, CHIP	470	5%	1/10W
R3747	1-216-121-91	RES, CHIP	1M	5%	1/10W
R3748	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3749	1-208-775-11	RES, CHIP	510	0.50%	1/10W
R3750	1-208-758-11	RES, CHIP	100	0.50%	1/10W
R3751	1-216-009-00	RES, CHIP	22	5%	1/10W
R3752	1-216-041-00	RES, CHIP	470	5%	1/10W
R3753	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3754	1-216-041-00	RES, CHIP	470	5%	1/10W
R3755	1-216-033-00	RES, CHIP	220	5%	1/10W
R3757	1-216-033-00	RES, CHIP	220	5%	1/10W
R3759	1-216-097-91	RES, CHIP	100K	5%	1/10W
R3760	1-216-053-00	RES, CHIP	1.5K	5%	1/10W
R3761	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3762	1-216-035-00	RES, CHIP	270	5%	1/10W
R3763	1-216-059-00	RES, CHIP	2.7K	5%	1/10W
R3764	1-216-071-00	RES, CHIP	8.2K	5%	1/10W
R3771	1-216-029-00	RES, CHIP	150	5%	1/10W
R3772	1-208-784-11	RES, CHIP	1.2K	0.50%	1/10W
R3773	1-208-806-11	RES, CHIP	10K	0.50%	1/10W
R3774	1-208-814-11	RES, CHIP	22K	0.50%	1/10W
R3775	1-216-029-00	RES, CHIP	150	5%	1/10W
R3776	1-208-788-11	RES, CHIP	1.8K	0.50%	1/10W
R3777	1-208-814-11	RES, CHIP	22K	0.50%	1/10W
R3778	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3782	1-216-295-91	SHORT	0		
R3783	1-216-097-91	RES, CHIP	100K	5%	1/10W
R3784	1-216-001-00	RES, CHIP	10	5%	1/10W
R3788	1-216-043-91	RES, CHIP	560	5%	1/10W
R3789	1-216-071-00	RES, CHIP	8.2K	5%	1/10W
R3790	1-216-091-00	RES, CHIP	56K	5%	1/10W
R3791	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3792	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3793	1-208-774-11	RES, CHIP	470	0.50%	1/10W
R3794	1-216-025-91	RES, CHIP	100	5%	1/10W
R3795	1-208-782-11	RES, CHIP	1K	0.50%	1/10W
R3806	1-216-001-00	RES, CHIP	10	5%	1/10W
R3810	1-216-043-91	RES, CHIP	560	5%	1/10W
R3811	1-216-071-00	RES, CHIP	8.2K	5%	1/10W
R3812	1-216-091-00	RES, CHIP	56K	5%	1/10W
R3813	1-216-081-00	RES, CHIP	22K	5%	1/10W
R3814	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3815	1-216-041-00	RES, CHIP	470	5%	1/10W
R3816	1-216-025-91	RES, CHIP	100	5%	1/10W
R3817	1-216-051-00	RES, CHIP	1.2K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R3858	1-216-025-91	RES, CHIP	100	5%	1/10W
R3859	1-216-025-91	RES, CHIP	100	5%	1/10W
R3880	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3881	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3884	1-216-041-00	RES, CHIP	470	5%	1/10W
R3885	1-216-041-00	RES, CHIP	470	5%	1/10W
R3886	1-216-105-91	RES, CHIP	220K	5%	1/10W
R3887	1-216-097-91	RES, CHIP	100K	5%	1/10W
R3888	1-216-089-91	RES, CHIP	47K	5%	1/10W
R3889	1-216-025-91	RES, CHIP	100	5%	1/10W
R3890	1-216-097-91	RES, CHIP	100K	5%	1/10W
R3891	1-216-097-91	RES, CHIP	100K	5%	1/10W
R3892	1-216-295-91	SHORT	0		
R3893	1-216-295-91	SHORT	0		
R3894	1-216-295-91	SHORT	0		
R3895	1-216-295-91	SHORT	0		
R3896	1-216-017-91	RES, CHIP	47	5%	1/10W
R3898	1-216-017-91	RES, CHIP	47	5%	1/10W
R3900	1-216-295-91	SHORT	0		
R3901	1-216-295-91	SHORT	0		
R3902	1-216-295-91	SHORT	0		
R3903	1-216-295-91	SHORT	0		
R3904	1-216-295-91	SHORT	0		

CRYSTAL

X3701	1-527-722-00	VIBRATOR, CRYSTAL	
X3702	1-579-583-11	VIBRATOR, CERAMIC	

C

*	**A-1335-103-A**	**C BOARD, COMPLETE**			

CAPACITOR

C1761	1-102-508-91	CERAMIC	10PF	0.5PF	50V
C1762	1-104-664-11	ELECT	47MF	20%	25V
C1763	1-102-508-91	CERAMIC	10PF	0.5PF	50V
C1764	1-104-664-11	ELECT	47MF	20%	25V
C1765	1-102-508-91	CERAMIC	10PF	0.5PF	50V
C1767	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1768	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1769	1-126-960-11	ELECT	1MF	20%	50V
C1770	1-102-157-00	CERAMIC	560PF	10%	500V
C1771	1-107-957-11	ELECT	1MF	20%	250V
C1772	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1773	1-102-157-00	CERAMIC	560PF	10%	500V
C1774	1-107-957-11	ELECT	1MF	20%	250V

C G

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C1775	1-102-129-00	CERAMIC	0.01MF	10%	50V
C1776	1-102-157-00	CERAMIC	560PF	10%	500V
C1777	1-107-957-11	ELECT	1MF	20%	250V
C1778	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1779	1-137-490-11	FILM	0.01MF	10%	1KV
C1783	1-106-375-12	MYLAR	0.022MF	99%	200V
C1784	1-106-375-12	MYLAR	0.022MF	99%	200V
C1786	1-107-651-11	ELECT	4.7MF	20%	250V
	CONNECTOR				
CN1761*	1-564-509-11	PLUG, CONNECTOR 6P			
CN1763	1-695-915-11	TAB (CONTACT)			
CN1764*	1-564-508-11	PLUG, CONNECTOR 5P			
	DIODE				
D1712	8-719-901-83	DIODE 1SS83			
D1713	8-719-908-03	DIODE GP08D			
D1762	8-719-991-33	DIODE 1SS133T-77			
D1763	8-719-991-33	DIODE 1SS133T-77			
D1764	8-719-991-33	DIODE 1SS133T-77			
D1767	8-719-109-89	DIODE RD5.6ESB2			
D1768	8-719-991-33	DIODE 1SS133T-77			
D1769	8-719-109-71	DIODE RD3.9ESB1			
D1770	8-719-901-83	DIODE 1SS83			
D1771	8-719-901-83	DIODE 1SS83			
	IC				
IC1761	8-759-346-42	ICTDA6101Q/N3			
IC1762	8-759-346-42	ICTDA6101Q/N3			
IC1763	8-759-346-42	ICTDA6101Q/N3			
	JACK				
J1761 ⚠	1-540-071-22	SOCKET, CRT			
	COIL				
L1761	1-410-470-11	INDUCTOR	10UH		
	TRANSISTOR				
Q1761	8-729-119-76	TRANSISTOR 2SA1175-HFE			
	RESISTOR				
R1761	1-215-413-00	METAL	470	1%	1/4W
R1762	1-215-413-00	METAL	470	1%	1/4W
R1763	1-215-424-00	METAL	1.3K	1%	1/4W
R1764	1-249-441-11	CARBON	100K	5%	1/4W
R1765	1-247-863-91	CARBON	22K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R1766	1-215-424-00	METAL	1.3K	1%	1/4W
R1767	1-249-437-11	CARBON	47K	5%	1/4W
R1768	1-247-807-31	CARBON	100	5%	1/4W
R1769	1-249-417-11	CARBON	1K	5%	1/4W
R1770	1-215-424-00	METAL	1.3K	1%	1/4W
R1771	1-249-432-11	CARBON	18K	5%	1/4W
R1772	1-249-421-11	CARBON	2.2K	5%	1/4W
R1773	1-249-422-11	CARBON	2.7K	5%	1/4W
R1774	1-215-903-11	METAL OXIDE	68K	5%	2W F
R1775	1-249-422-11	CARBON	2.7K	5%	1/4W
R1776	1-215-903-11	METAL OXIDE	68K	5%	2W F
R1777	1-260-099-11	CARBON	1K	5%	1/2W
R1778	1-249-422-11	CARBON	2.7K	5%	1/4W
R1779	1-215-903-11	METAL OXIDE	68K	5%	2W F
R1780	1-249-436-11	CARBON	39K	5%	1/4W
R1781	1-260-099-11	CARBON	1K	5%	1/2W
R1782	1-260-099-11	CARBON	1K	5%	1/2W
R1783	1-260-087-11	CARBON	100	5%	1/2W
R1786	1-260-115-11	CARBON	22K	5%	1/2W
R1787	1-216-374-00	METAL OXIDE	2.7	5%	2W F
R1788	1-260-132-11	CARBON	560K	5%	1/2W
	VARIABLE RESISTOR				
RV1761	1-241-714-11	RES, ADJ, METAL FILM 110M			

G

*	**A-1316-397-A**	**G BOARD, COMPLETE**			
	1-533-223-11	**HOLDER, FUSE**			
	4-382-854-11	**SCREW (M3X10), P, SW (+)**			
	CAPACITOR				
C601	1-136-346-21	FILM	0.22MF	20%	125V
C602	1-126-964-11	ELECT	10MF	20%	50V
C603 ⚠	1-113-903-11	CERAMIC	0.001MF	20%	250V
C604 ⚠	1-136-346-21	FILM	0.22MF	20%	125V
C605 ⚠	1-136-346-21	FILM	0.22MF	20%	125V
C606 ⚠	1-117-894-11	ELECT	560MF	20%	250V
C607 ⚠	1-117-894-11	ELECT	560MF	20%	250V
C608	1-107-824-11	CERAMIC	220PF	5%	1KV
C609	1-136-176-00	FILM	0.82MF	5%	50V
C610	1-136-176-00	FILM	0.82MF	5%	50V
C611	1-136-169-00	FILM	0.22MF	5%	50V
C612	1-136-169-00	FILM	0.22MF	5%	50V
C613	1-164-646-11	CERAMIC	2200PF	10%	500V

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

G

REF.NO.	PART NO.	DESCRIPTION			REMARK
C614	1-126-963-11	ELECT	4.7MF	20%	50V
C615	1-117-976-11	FILM	0.039MF	5%	800V
C616 ⚠	1-113-903-11	CERAMIC	0.001MF	20%	250V
C618	1-126-968-11	ELECT	100MF	20%	50V
C624	1-126-960-11	ELECT	1MF	20%	50V
C629 ⚠	1-107-652-11	ELECT	10MF	20%	250V
C630	1-130-471-00	MYLAR	0.001MF	5%	50V
C631	1-137-605-11	FILM	0.01MF	10%	250V
C633	1-130-471-00	MYLAR	0.001MF	5%	50V
C634	1-130-467-00	MYLAR	470PF	5%	50V
C635	1-130-471-00	MYLAR	0.001MF	5%	50V
C636	1-126-965-11	ELECT	22MF	20%	50V
C637	1-126-940-11	ELECT	330MF	20%	25V
C641	1-128-550-11	ELECT	2200MF	20%	50V
C643	1-107-995-11	ELECT	100MF	0	160V
C644	1-104-664-11	ELECT	47MF	20%	25V
C647	1-104-665-11	ELECT	100MF	20%	25V
C650	1-104-664-11	ELECT	47MF	20%	25V
C651	1-130-477-00	MYLAR	0.0033MF	5%	50V
C652	1-106-351-00	MYLAR	0.0022MF	99%	200V
C653	1-107-636-11	ELECT	10MF	20%	160V
C656	1-126-964-11	ELECT	10MF	20%	50V
C657	1-137-372-11	FILM	0.022MF	5%	50V
C658	1-126-941-11	ELECT	470MF	20%	25V
C660	1-126-936-11	ELECT	3300MF	20%	16V
C661	1-104-664-11	ELECT	47MF	20%	25V
C662	1-126-933-11	ELECT	100MF	20%	16V
C665	1-104-664-11	ELECT	47MF	20%	25V
C695	1-164-625-11	CERAMIC	680PF	10%	500V
C696	1-164-625-11	CERAMIC	680PF	10%	500V
C697	1-164-625-11	CERAMIC	680PF	10%	500V
C698	1-164-625-11	CERAMIC	680PF	10%	500V
C699	1-136-169-00	FILM	0.22MF	5%	50V

CONNECTOR

CN601*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN602*	1-580-844-11	PIN, CONNECTOR (POWER)
CN603*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P
CN641*	1-564-515-11	PLUG, CONNECTOR 12P
CN642*	1-564-509-11	PLUG, CONNECTOR 6P
CN643*	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P

DIODE

D600	8-719-991-33	DIODE 1SS133T-77
D601	8-719-991-33	DIODE 1SS133T-77
D602 ⚠	8-719-510-53	DIODE D4SB60L
D603	8-719-063-70	DIODE D1NL20U
D604	8-719-991-33	DIODE 1SS133T-77
D605	8-719-923-83	DIODE MTZJ-T-77-13A
D606	8-719-110-63	DIODE RD24ESB3
D607	8-719-109-97	DIODE RD6.8ESB2
D608	8-719-109-97	DIODE RD6.8ESB2
D612	8-719-991-33	DIODE 1SS133T-77
D613	8-719-991-33	DIODE 1SS133T-77
D614	8-719-991-33	DIODE 1SS133T-77
D621	8-719-911-55	DIODE U05G
D622	8-719-911-55	DIODE U05G
D623	8-719-948-45	DIODE ERA22-08
D624	8-719-991-33	DIODE 1SS133T-77
D625	8-719-991-33	DIODE 1SS133T-77
D626	8-719-109-93	DIODE RD6.2ESB2
D627	8-719-510-48	DIODE D1N20R
D628	8-719-510-02	DIODE D1NS4
D629	8-719-052-90	DIODE D1NL40-TA2
D630	8-719-052-90	DIODE D1NL40-TA2
D641	8-719-060-89	DIODE D4SBS6-F
D642	8-719-510-12	DIODE D10SC4M
D643	8-719-062-40	DIODE D4SBL20UF3
D647	8-719-063-70	DIODE D1NL20U
D648	8-719-057-52	DIODE EZ0150AV1
D651	8-719-510-02	DIODE D1NS4
D652	8-719-510-02	DIODE D1NS4
D653	8-719-991-33	DIODE 1SS133T-77
D698	8-719-991-33	DIODE 1SS133T-77
D699	8-719-923-86	DIODE MTZJ-T-77-15

FUSE

F601 ⚠	1-532-506-51	FUSE 6.3A/250V

FERRITE BEAD

FB601	1-410-396-41	FERRITE	0.45UH
FB602	1-410-396-41	FERRITE	0.45UH
FB603	1-410-396-41	FERRITE	0.45UH
FB604	1-410-396-41	FERRITE	0.45UH
FB641	1-410-397-21	FERRITE	1.1UH
FB642	1-410-397-21	FERRITE	1.1UH
FB645	1-410-397-21	FERRITE	1.1UH
FB647	1-410-397-21	FERRITE	1.1UH

IC

IC601 ⚠	8-729-045-41	TRANSISTOR MX0842B-F
IC622	8-759-450-47	IC BA05T
IC641	8-759-198-03	IC PQ09RF21
IC643 ⚠	8-749-012-13	POWER MODULE DM-58

G

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION				
IC650	8-759-394-35	ICBA12T				
IC651	8-759-450-47	ICBA05T				
	COIL					
L642	1-412-529-11	INDUCTOR	22UH			
L650	1-412-519-11	INDUCTOR	3.3UH			
L651	1-412-519-11	INDUCTOR	3.3UH			
L652	1-412-519-11	INDUCTOR	3.3UH			
	TRANSISTOR					
Q621 ⚠	8-729-044-30	TRANSISTOR 2SK2845-LB102				
Q622	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q623	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q624	8-729-026-41	TRANSISTOR 2SA933AS-QRT				
Q644	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q645	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q646	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q647	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q648	8-729-922-39	TRANSISTOR 2SD2144S-V				
Q649	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q650	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q651	8-729-802-71	TRANSISTOR 2SA1407-E				
Q652	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q653	8-729-119-78	TRANSISTOR 2SC2785-HFE				
	RESISTOR					
R601	1-249-377-11	CARBON	0.47	5%	1/4W	F
R602	1-249-429-11	CARBON	10K	5%	1/4W	
R603 ⚠	1-219-776-11	CARBON	2.2M	10%	1/2W	
R604	1-249-429-11	CARBON	10K	5%	1/4W	
R605	1-249-429-11	CARBON	10K	5%	1/4W	
R606	1-249-421-11	CARBON	2.2K	5%	1/4W	
R607 ⚠	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R608	1-216-369-00	METAL OXIDE	1	5%	2W	F
R609	1-249-417-11	CARBON	1K	5%	1/4W	
R610	1-249-425-11	CARBON	4.7K	5%	1/4W	
R611	1-216-369-00	METAL OXIDE	1	5%	2W	F
R612	1-260-124-11	CARBON	120K	5%	1/2W	
R613	1-260-124-11	CARBON	120K	5%	1/2W	
R614	1-260-124-11	CARBON	120K	5%	1/2W	
R615	1-260-124-11	CARBON	120K	5%	1/2W	
R618	1-249-425-11	CARBON	4.7K	5%	1/4W	
R619	1-249-425-11	CARBON	4.7K	5%	1/4W	
R621	1-249-429-11	CARBON	10K	5%	1/4W	
R620	1-126-967-11	ELECT	47MF	20%	50V	
R622	1-247-863-91	CARBON	22K	5%	1/4W	
R623 ⚠	1-240-257-11	CMT, MELF	3.9	5%	20W	

REF.NO.	PART NO.	DESCRIPTION				
R624 ⚠	1-215-485-00	METAL	470K	1%	1/4W	
R625 ⚠	1-215-485-00	METAL	470K	1%	1/4W	
R626	1-249-425-11	CARBON	4.7K	5%	1/4W	
R627	1-249-405-11	CARBON	100	5%	1/4W	F
R631	1-240-205-91	CARBON	22M	5%	1/2W	
R632	1-249-421-11	CARBON	2.2K	5%	1/4W	
R633	1-249-429-11	CARBON	10K	5%	1/4W	
R634	1-249-437-11	CARBON	47K	5%	1/4W	
R635	1-247-791-91	CARBON	22	5%	1/4W	
R636	1-249-415-11	CARBON	680	5%	1/4W	
R637	1-260-302-51	CARBON	6.8	5%	1/2W	
R638	1-249-413-11	CARBON	470	5%	1/4W	
R639	1-249-389-11	CARBON	4.7	5%	1/4W	F
R640	1-215-485-00	METAL	470K	1%	1/4W	
R641	1-247-843-11	CARBON	3.3K	5%	1/4W	
R642	1-247-843-11	CARBON	3.3K	5%	1/4W	
R643	1-249-387-11	CARBON	3.3	5%	1/4W	F
R644	1-249-417-11	CARBON	1K	5%	1/4W	
R645	1-249-429-11	CARBON	10K	5%	1/4W	
R646	1-249-417-11	CARBON	1K	5%	1/4W	
R648	1-249-441-11	CARBON	100K	5%	1/4W	
R649	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R650	1-249-421-11	CARBON	2.2K	5%	1/4W	
R651	1-215-908-00	METAL OXIDE	33	5%	3W	F
R652 ⚠	1-216-363-00	METAL OXIDE		0.335%	2W	F
R653	1-215-423-00	METAL	1.2K	1%	1/4W	
R654	1-215-481-00	METAL	330K	1%	1/4W	
R655	1-215-469-00	METAL	100K	1%	1/4W	
R656	1-249-427-11	CARBON	6.8K	5%	1/4W	
R657	1-249-421-11	CARBON	2.2K	5%	1/4W	
R659	1-249-429-11	CARBON	10K	5%	1/4W	
R660	1-249-393-11	CARBON	10	5%	1/4W	F
R661 ⚠	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R662	1-215-485-00	METAL	470K	1%	1/4W	
R663	1-215-445-00	METAL	10K	1%	1/4W	
R664 ⚠	1-240-257-11	CMT, MELF	3.9	5%	20W	
R665	1-249-425-11	CARBON	4.7K	5%	1/4W	
R670	1-260-312-11	CARBON	47	5%	1/2W	
R671	1-260-312-11	CARBON	47	5%	1/2W	
R680	1-216-364-11	METAL OXIDE	0.39	5%	2W	F
R681	1-216-365-00	METAL OXIDE	0.47	5%	2W	F
R699	1-249-429-11	CARBON	10K	5%	1/4W	
	RELAY					
RY600 ⚠	1-755-266-11	RELAY, AC POWER				
RY601 ⚠	1-755-146-11	RELAY, AC POWER				

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

HF HX K

REF.NO.	PART NO.	DESCRIPTION	REMARK
	TRANSFORMER		
T601 ⚠	1-426-717-11	TRANSFORMER, LINE FILTER (LFT)	
T602 ⚠	1-426-717-11	TRANSFORMER, LINE FILTER (LFT)	
T603 ⚠	1-429-992-21	TRANSFORMER, CONVERTER (PRT)	
T605 ⚠	1-433-408-11	TRANSFORMER, CONVERTER	
T621 ⚠	1-431-852-11	TRANSFORMER, CONVERTER (SRT)	
	THERMISTOR		
THP601 ⚠	1-809-539-11	THERMISTOR, POSITIVE	
THP602 ⚠	1-809-539-11	THERMISTOR, POSITIVE	
	VARISTOR		
VDR602 ⚠	1-801-074-41	VARISTOR ERZV10D271	

HF

*	**A-1372-520-A**	**HF BOARD, MOUNTED**			
	CAPACITOR				
C1234	1-126-960-11	ELECT	1MF	20%	50V
C1235	1-126-960-11	ELECT	1MF	20%	50V
C2001	1-104-665-11	ELECT	100MF	20%	25V
	CONNECTOR				
CN1232	1-564-524-11	PLUG, CONNECTOR 9P			
CN2001 *	1-564-520-11	PLUG, CONNECTOR 5P			
	DIODE				
D1233	8-719-110-17	DIODE RD10ESB2			
D2002	8-719-057-09	DIODE LNJ801LPDJA			
D2003	8-719-057-09	DIODE LNJ801LPDJA			
	IC				
IC2001	8-742-014-11	HYBIC SBX1981-51			
	JACK				
J1231	1-691-110-11	JACK, PIN 3P			
J1232	1-694-063-11	TERMINAL, S			
	RESISTOR				
R1233	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1235	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1236	1-216-113-00	RES, CHIP	470K	5%	1/10W
R1237	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1238	1-216-113-00	RES, CHIP	470K	5%	1/10W
R2001	1-216-041-00	RES, CHIP	470	5%	1/10W
R2002	1-216-041-00	RES, CHIP	470	5%	1/10W
R2003	1-249-401-11	CARBON	47	5%	1/4W

HX

*	**A-1372-526-A**	**HX BOARD (VAR), MOUNTED**			
	CONNECTOR				
CN2002 *	1-564-518-11	PLUG, CONNECTOR 3P			
	RESISTOR				
R2010	1-216-047-91	RES, CHIP	820	5%	1/10W
R2011	1-216-049-91	RES, CHIP	1K	5%	1/10W
R2012	1-216-055-00	RES, CHIP	1.8K	5%	1/10W
R2013	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R2014	1-216-073-00	RES, CHIP	10K	5%	1/10W
R2015	1-216-025-91	RES, CHIP	100	5%	1/10W
	SWITCH				
S2001	1-572-198-11	SWITCH, KEYBOARD			
S2002	1-572-198-11	SWITCH, KEYBOARD			
S2003	1-572-198-11	SWITCH, KEYBOARD			
S2004	1-572-198-11	SWITCH, KEYBOARD			
S2005	1-572-198-11	SWITCH, KEYBOARD			
S2006	1-572-198-11	SWITCH, KEYBOARD			
S2007	1-572-198-11	SWITCH, KEYBOARD			

K

*	**A-1385-185-A**	**K BOARD, COMPLETE**			
	4-382-854-11	**SCREW (M3X10), P, SW (+)**			
	CAPACITOR				
C1461	1-126-960-11	ELECT	1MF	20%	50V
C1462	1-126-960-11	ELECT	1MF	20%	50V
C1464	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C1465	1-126-960-11	ELECT	1MF	20%	50V
C1467	1-126-941-11	ELECT	470MF	20%	25V
C1468	1-126-960-11	ELECT	1MF	20%	50V
C1470	1-126-960-11	ELECT	1MF	20%	50V
C1471	1-136-165-00	FILM	0.1MF	5%	50V
C1472	1-137-194-81	FILM	0.47MF	5%	50V
C1473	1-128-550-11	ELECT	2200MF	20%	50V

K

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C1474	1-136-165-00	FILM	0.1MF	5%	50V
C1475	1-128-550-11	ELECT	2200MF	20%	50V
C1476	1-128-550-11	ELECT	2200MF	20%	50V
C1477	1-126-971-11	ELECT	470MF	20%	50V
C1478	1-126-971-11	ELECT	470MF	20%	50V
C2401	1-126-963-11	ELECT	4.7MF	20%	50V
C2402	1-126-964-11	ELECT	10MF	20%	50V
C2403	1-126-963-11	ELECT	4.7MF	20%	50V
C2404	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C2405	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C2406	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C2407	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C2408	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C2409	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2410	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C2411	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C2414	1-164-222-11	CERAMIC CHIP	0.22MF		25V
C2415	1-126-965-11	ELECT	22MF	20%	50V
C2416	1-104-665-11	ELECT	100MF	20%	25V
C2418	1-104-666-11	ELECT	220MF	20%	25V
C2420	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C2421	1-126-964-11	ELECT	10MF	20%	50V
C2422	1-126-964-11	ELECT	10MF	20%	50V
C5201	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5202	1-126-967-11	ELECT	47MF	20%	50V
C5203	1-126-963-11	ELECT	4.7MF	20%	50V
C5204	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5205	1-126-967-11	ELECT	47MF	20%	50V
C5206	1-126-967-11	ELECT	47MF	20%	50V
C5207	1-126-967-11	ELECT	47MF	20%	50V
C5208	1-126-967-11	ELECT	47MF	20%	50V
C5209	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5210	1-126-963-11	ELECT	4.7MF	20%	50V
C5211	1-164-690-91	CERAMIC CHIP	0.0022MF	5%	50V
C5212	1-164-690-91	CERAMIC CHIP	0.0022MF	5%	50V
C5213	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C5214	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C5215	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C5216	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5217	1-126-967-11	ELECT	47MF	20%	50V
C5218	1-126-967-11	ELECT	47MF	20%	50V
C5219	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5220	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5221	1-126-967-11	ELECT	47MF	20%	50V
C5222	1-126-967-11	ELECT	47MF	20%	50V
C5223	1-164-690-91	CERAMIC CHIP	0.0022MF	5%	50V
C5224	1-164-690-91	CERAMIC CHIP	0.0022MF	5%	50V

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C5227	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5228	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5229	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5230	1-126-967-11	ELECT	47MF	20%	50V
C5231	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5232	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5233	1-126-960-11	ELECT	1MF	20%	50V
C5234	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V
C5235	1-107-725-11	CERAMIC CHIP	0.1MF	10%	16V

CONNECTOR

CN1462*	1-564-507-11	PLUG, CONNECTOR 4P	
CN1463*	1-564-509-11	PLUG, CONNECTOR 6P	
CN5001*	1-564-508-11	PLUG, CONNECTOR 5P	
CN5002*	1-564-507-11	PLUG, CONNECTOR 4P	
CN5003*	1-564-507-11	PLUG, CONNECTOR 4P	

DIODE

D1461	8-719-404-49	DIODE MA111	
D1463	8-719-404-49	DIODE MA111	

FERRITE BEAD

FB5201	1-410-397-21	FERRITE	1.1UH

FILTER

FL5201	1-239-803-11	ENCAPSULATED COMPONENT	

IC

IC1461	8-759-168-24	IC TA8200AH	
IC2401	8-759-369-39	IC BH3856FS-E2	
IC5201	8-759-549-74	IC TC9447F-003	
IC5202	8-759-998-74	IC RH5VA33CC	

CHIP CONDUCTOR

JR1410	1-216-295-91	SHORT	0
JR1411	1-216-295-91	SHORT	0
JR1413	1-216-295-91	SHORT	0
JR1419	1-216-295-91	SHORT	0
JR1424	1-216-295-91	SHORT	0
JR1425	1-216-295-91	SHORT	0
JR1426	1-216-295-91	SHORT	0
JR1427	1-216-295-91	SHORT	0
JR1461	1-216-295-91	SHORT	0
JR1462	1-216-295-91	SHORT	0
JR5211	1-216-295-91	SHORT	0
JR5214	1-216-295-91	SHORT	0
JR5217	1-216-295-91	SHORT	0

K PX

REF.NO.	PART NO.	DESCRIPTION			REMARK
JR5225	1-216-295-91	SHORT	0		
JR5226	1-216-295-91	SHORT	0		
	COIL				
L5201	1-408-595-31	INDUCTOR	2.2UH		
L5203	1-408-607-31	INDUCTOR	22UH		
L5204	1-408-607-31	INDUCTOR	22UH		
	IC LINK				
PS1461	1-532-984-11	LINK, IC 2A/90V			
	TRANSISTOR				
Q1461	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q1462	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q1463	8-729-900-53	TRANSISTOR DTC114EK			
Q1464	8-729-900-53	TRANSISTOR DTC114EK			
	RESISTOR				
R1461	1-216-033-00	RES, CHIP	220	5% 1/10W	
R1462	1-216-073-00	RES, CHIP	10K	5% 1/10W	
R1464	1-216-033-00	RES, CHIP	220	5% 1/10W	
R1465	1-216-089-91	RES, CHIP	47K	5% 1/10W	
R1466	1-216-089-91	RES, CHIP	47K	5% 1/10W	
R1467	1-216-073-00	RES, CHIP	10K	5% 1/10W	
R1469	1-249-389-11	CARBON	4.7	5% 1/4W	F
R1470	1-249-389-11	CARBON	4.7	5% 1/4W	F
R1471	1-216-049-91	RES, CHIP	1K	5% 1/10W	
R1472	1-216-077-00	RES, CHIP	15K	5% 1/10W	
R1473	1-216-049-91	RES, CHIP	1K	5% 1/10W	
R1474	1-216-295-91	SHORT	0		
R1475	1-216-295-91	SHORT	0		
R1480	1-216-057-00	RES, CHIP	2.2K	5% 1/10W	
R1481	1-216-057-00	RES, CHIP	2.2K	5% 1/10W	
R1482	1-216-295-91	SHORT	0		
R1483	1-216-295-91	SHORT	0		
R2424	1-216-025-91	RES, CHIP	100	5% 1/10W	
R2425	1-216-025-91	RES, CHIP	100	5% 1/10W	
R5201	1-216-065-91	RES, CHIP	4.7K	5% 1/10W	
R5202	1-216-065-91	RES, CHIP	4.7K	5% 1/10W	
R5203	1-216-065-91	RES, CHIP	4.7K	5% 1/10W	
R5204	1-216-049-91	RES, CHIP	1K	5% 1/10W	
R5205	1-216-049-91	RES, CHIP	1K	5% 1/10W	
R5206	1-216-129-00	RES, CHIP	2.2M	5% 1/10W	
R5207	1-216-035-00	RES, CHIP	270	5% 1/10W	
R5208	1-216-035-00	RES, CHIP	270	5% 1/10W	
R5210	1-216-033-00	RES, CHIP	220	5% 1/10W	
R5211	1-216-033-00	RES, CHIP	220	5% 1/10W	
R5212	1-216-065-91	RES, CHIP	4.7K	5% 1/10W	
R5213	1-216-065-91	RES, CHIP	4.7K	5% 1/10W	
R5214	1-216-069-00	RES, CHIP	6.8K	5% 1/10W	
R5215	1-216-069-00	RES, CHIP	6.8K	5% 1/10W	
	CRYSTAL				
X5201	1-579-834-11	VIBRATOR, CRYSTAL			

PX

*	**A-1195-141-A**	**BOARD, COMPLETE**			
	4-382-854-11	**SCREW (M3X10), P, SW (+)**			
	CAPACITOR				
C3301	1-104-664-11	ELECT	47MF	20% 25V	
C3302	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C3303	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C3304	1-163-809-11	CERAMIC CHIP	0.047MF	10% 25V	
C3306	1-163-021-91	CERAMIC CHIP	0.01MF	10% 50V	
C3307	1-126-960-11	ELECT	1MF	20% 50V	
C3308	1-126-935-11	ELECT	470MF	20% 16V	
C3310	1-163-017-00	CERAMIC CHIP	0.0047MF	10% 50V	
C3311	1-126-963-11	ELECT	4.7MF	20% 50V	
C3312	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C3314	1-164-346-11	CERAMIC CHIP	1MF	16V	
C3315	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C3316	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C3317	1-126-959-11	ELECT	0.47MF	20% 50V	
C3318	1-163-231-11	CERAMIC CHIP	15PF	5% 50V	
C3319	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3320	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3321	1-107-701-11	ELECT	47MF	20% 16V	
C3322	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C3323	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3324	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3325	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3326	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3327	1-163-133-00	CERAMIC CHIP	470PF	5% 50V	
C3329	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3330	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C3331	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C3332	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3333	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3334	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C3335	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3336	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3339	1-164-346-11	CERAMIC CHIP	1MF	16V	

PX

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C3340	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3342	1-163-038-91	CERAMIC CHIP	0.1MF	25V	
C3343	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3344	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3345	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3346	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3347	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3348	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3349	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3351	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3352	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3353	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3354	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3355	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3356	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3357	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3358	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3359	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3360	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3364	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3365	1-104-664-11	ELECT	47MF	20%	25V
C3366	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3367	1-104-664-11	ELECT	47MF	20%	25V
C3386	1-104-664-11	ELECT	47MF	20%	25V
C3387	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C3388	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C3389	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C3391	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3392	1-126-960-11	ELECT	1MF	20%	50V
C3393	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C3394	1-126-959-11	ELECT	0.47MF	20%	50V
C3395	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3396	1-126-963-11	ELECT	4.7MF	20%	50V
C3397	1-126-935-11	ELECT	470MF	20%	16V
C3399	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3400	1-164-346-11	CERAMIC CHIP	1MF		16V
C3401	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3402	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3406	1-104-664-11	ELECT	47MF	20%	25V
C3407	1-104-664-11	ELECT	47MF	20%	25V
C3408	1-104-664-11	ELECT	47MF	20%	25V
C3409	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C3412	1-126-959-11	ELECT	0.47MF	20%	50V
C3413	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3416	1-126-959-11	ELECT	0.47MF	20%	50V
C3417	1-104-664-11	ELECT	47MF	20%	25V
C3418	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V

REF.NO.	PART NO.	DESCRIPTION		REMARK	
C3451	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3452	1-164-346-11	CERAMIC CHIP	1MF		16V
C3453	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3454	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C3455	1-164-346-11	CERAMIC CHIP	1MF		16V
C3456	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3457	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3458	1-104-664-11	ELECT	47MF	20%	25V
C3459	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C3460	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3461	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C3462	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3463	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3464	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3465	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3466	1-164-005-11	CERAMIC CHIP	0.47MF		25V
C3467	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C3468	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C3469	1-104-664-11	ELECT	47MF	20%	25V
C3470	1-163-038-91	CERAMIC CHIP	0.1MF		25V

FILTER BLOCK

CM3301	1-473-983-11	FILTER BLOCK, COMB

CONNECTOR

CN3301	1-764-812-11	CONNECTOR, BOARD TO BOARD 11P
CN3302*	1-764-815-11	CONNECTOR, BOARD TO BOARD 18P

DIODE

D3302	8-719-404-49	DIODE MA111
D3303	8-719-404-49	DIODE MA111
D3313	8-719-404-49	DIODE MA111
D3314	8-719-404-49	DIODE MA111
D3451	8-719-053-40	DIODE SC016-2-TE12RA

FERRITE BEAD

FB3301	1-414-233-21	INDUCTOR CHIP	0UH
FB3302	1-414-233-21	INDUCTOR CHIP	0UH
FB3303	1-414-233-21	INDUCTOR CHIP	0UH
FB3304	1-414-233-21	INDUCTOR CHIP	0UH
FB3305	1-414-233-21	INDUCTOR CHIP	0UH
FB3306	1-414-233-21	INDUCTOR CHIP	0UH
FB3307	1-414-233-21	INDUCTOR CHIP	0UH
FB3308	1-414-233-21	INDUCTOR CHIP	0UH

IC

IC3301	8-759-932-69	IC BU4053BCF-T2
IC3302	8-752-086-80	IC CXA2019AQ-T4

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC3303	8-759-351-59	ICTC528257J-80(EL)	
IC3304	8-759-498-32	ICSAB9076H/N4	
IC3306	8-759-231-53	ICTA7805S	
IC3308	8-759-932-69	ICBU4053BCF-T2	
IC3309	8-752-086-80	ICCXA2019AQ-T4	
IC3310	8-759-366-24	ICTDA8315T/N3A-T	
IC3311	8-759-432-78	ICMM1111XFBE	
	COIL		
L3301	1-408-607-31	INDUCTOR 22UH	
L3304	1-410-462-11	INDUCTOR 2.2UH	
L3305	1-410-462-11	INDUCTOR 2.2UH	
	TRANSISTOR		
Q3301	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3302	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3305	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3307	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3308	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3309	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3310	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3311	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3318	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3319	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3320	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3325	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3326	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3327	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3330	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3333	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3339	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3342	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3343	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3344	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3345	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3346	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3347	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q3451	8-729-422-27	TRANSISTOR 2SD601A-Q	
	RESISTOR		
R3301	1-216-049-91	RES, CHIP 1K	5% 1/10W
R3302	1-216-049-91	RES, CHIP 1K	5% 1/10W
R3303	1-216-049-91	RES, CHIP 1K	5% 1/10W
R3304	1-216-295-91	SHORT 0	
R3305	1-216-295-91	SHORT 0	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R3306	1-216-295-91	SHORT 0	
R3307	1-216-033-00	RES, CHIP 220	5% 1/10W
R3311	1-216-025-91	RES, CHIP 100	5% 1/10W
R3312	1-216-025-91	RES, CHIP 100	5% 1/10W
R3313	1-216-025-91	RES, CHIP 100	5% 1/10W
R3314	1-216-073-00	RES, CHIP 10K	5% 1/10W
R3315	1-216-071-00	RES, CHIP 8.2K	5% 1/10W
R3316	1-216-077-00	RES, CHIP 15K	5% 1/10W
R3317	1-216-053-00	RES, CHIP 1.5K	5% 1/10W
R3318	1-216-033-00	RES, CHIP 220	5% 1/10W
R3320	1-216-057-00	RES, CHIP 2.2K	5% 1/10W
R3322	1-216-061-00	RES, CHIP 3.3K	5% 1/10W
R3323	1-216-065-91	RES, CHIP 4.7K	5% 1/10W
R3324	1-216-065-91	RES, CHIP 4.7K	5% 1/10W
R3325	1-216-073-00	RES, CHIP 10K	5% 1/10W
R3326	1-216-049-91	RES, CHIP 1K	5% 1/10W
R3327	1-216-025-91	RES, CHIP 100	5% 1/10W
R3328	1-216-025-91	RES, CHIP 100	5% 1/10W
R3329	1-216-025-91	RES, CHIP 100	5% 1/10W
R3330	1-216-025-91	RES, CHIP 100	5% 1/10W
R3331	1-216-001-00	RES, CHIP 10	5% 1/10W
R3332	1-216-001-00	RES, CHIP 10	5% 1/10W
R3333	1-216-025-91	RES, CHIP 100	5% 1/10W
R3334	1-216-009-00	RES, CHIP 22	5% 1/10W
R3335	1-216-009-00	RES, CHIP 22	5% 1/10W
R3336	1-216-009-00	RES, CHIP 22	5% 1/10W
R3339	1-216-025-91	RES, CHIP 100	5% 1/10W
R3340	1-216-025-91	RES, CHIP 100	5% 1/10W
R3341	1-216-025-91	RES, CHIP 100	5% 1/10W
R3342	1-216-009-00	RES, CHIP 22	5% 1/10W
R3343	1-216-009-00	RES, CHIP 22	5% 1/10W
R3344	1-216-009-00	RES, CHIP 22	5% 1/10W
R3345	1-216-025-91	RES, CHIP 100	5% 1/10W
R3347	1-216-001-00	RES, CHIP 10	5% 1/10W
R3348	1-216-001-00	RES, CHIP 10	5% 1/10W
R3350	1-216-025-91	RES, CHIP 100	5% 1/10W
R3351	1-216-025-91	RES, CHIP 100	5% 1/10W
R3352	1-216-025-91	RES, CHIP 100	5% 1/10W
R3353	1-216-001-00	RES, CHIP 10	5% 1/10W
R3354	1-216-033-00	RES, CHIP 220	5% 1/10W
R3355	1-216-033-00	RES, CHIP 220	5% 1/10W
R3356	1-216-025-91	RES, CHIP 100	5% 1/10W
R3357	1-216-033-00	RES, CHIP 220	5% 1/10W
R3358	1-216-001-00	RES, CHIP 10	5% 1/10W
R3359	1-216-057-00	RES, CHIP 2.2K	5% 1/10W
R3361	1-216-049-91	RES, CHIP 1K	5% 1/10W
R3362	1-216-295-91	SHORT 0	

PX UX

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R3363	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R3364	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R3365	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3366	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R3367	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3368	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3369	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R3370	1-216-025-91	RES, CHIP	100	5%	1/10W
R3372	1-216-025-91	RES, CHIP	100	5%	1/10W
R3375	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3379	1-216-308-00	RES, CHIP	4.7	5%	1/10W
R3380	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3381	1-216-308-00	RES, CHIP	4.7	5%	1/10W
R3383	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3384	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3385	1-216-295-91	SHORT	0		
R3386	1-216-295-91	SHORT	0		
R3387	1-216-295-91	SHORT	0		
R3408	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3409	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3410	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3413	1-216-295-91	SHORT	0		
R3414	1-216-295-91	SHORT	0		
R3415	1-216-295-91	SHORT	0		
R3419	1-216-033-00	RES, CHIP	220	5%	1/10W
R3420	1-216-025-91	RES, CHIP	100	5%	1/10W
R3421	1-216-025-91	RES, CHIP	100	5%	1/10W
R3422	1-216-025-91	RES, CHIP	100	5%	1/10W
R3423	1-216-071-00	RES, CHIP	8.2K	5%	1/10W
R3425	1-216-077-00	RES, CHIP	15K	5%	1/10W
R3426	1-216-053-00	RES, CHIP	1.5K	5%	1/10W
R3427	1-216-033-00	RES, CHIP	220	5%	1/10W
R3430	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3431	1-216-061-00	RES, CHIP	3.3K	5%	1/10W
R3434	1-216-295-91	SHORT	0		
R3435	1-216-295-91	SHORT	0		
R3438	1-216-025-91	RES, CHIP	100	5%	1/10W
R3450	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R3451	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3452	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3453	1-216-025-91	RES, CHIP	100	5%	1/10W
R3454	1-216-025-91	RES, CHIP	100	5%	1/10W
R3456	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3457	1-216-049-91	RES, CHIP	1K	5%	1/10W
R3460	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3463	1-216-057-00	RES, CHIP	2.2K	5%	1/10W
R3466	1-216-295-91	SHORT	0		
R3468	1-216-295-91	SHORT	0		
R3470	1-216-037-00	RES, CHIP	330	5%	1/10W
R3471	1-216-109-00	RES, CHIP	330K	5%	1/10W
R3472	1-216-025-91	RES, CHIP	100	5%	1/10W
R3473	1-216-295-91	SHORT	0		
R3475	1-216-037-00	RES, CHIP	330	5%	1/10W
R3476	1-216-025-91	RES, CHIP	100	5%	1/10W
R3477	1-216-109-00	RES, CHIP	330K	5%	1/10W
R3479	1-216-295-91	SHORT	0		
R3480	1-216-295-91	SHORT	0		
R3481	1-216-295-91	SHORT	0		
R3484	1-216-295-91	SHORT	0		
R3485	1-216-295-91	SHORT	0		
R3487	1-216-295-91	SHORT	0		
R3488	1-216-295-91	SHORT	0		
R3491	1-216-075-00	RES, CHIP	12K	5%	1/10W
R3492	1-216-025-91	RES, CHIP	100	5%	1/10W
R3493	1-216-041-00	RES, CHIP	470	5%	1/10W
R3494	1-216-045-00	RES, CHIP	680	5%	1/10W
R3495	1-216-097-91	RES, CHIP	100K	5%	1/10W
R3496	1-216-073-00	RES, CHIP	10K	5%	1/10W
R3497	1-216-295-91	SHORT	0		

CRYSTAL

X3301	1-579-583-11	VIBRATOR, CERAMIC	
X3302	1-567-505-11	OSCILLATOR, CRYSTAL	
X3303	1-579-583-11	VIBRATOR, CERAMIC	
X3304	1-567-505-11	OSCILLATOR, CRYSTAL	
X3451	1-567-505-11	OSCILLATOR, CRYSTAL	

UX

*	A-1394-907-A	UX BOARD, COMPLETE			

CAPACITOR

C151	1-126-960-11	ELECT	1MF	20%	50V
C152	1-126-960-11	ELECT	1MF	20%	50V
C167	1-104-665-11	ELECT	100MF	20%	25V
C201	1-128-551-11	ELECT	22MF	20%	25V
C202	1-128-551-11	ELECT	22MF	20%	25V
C203	1-128-551-11	ELECT	22MF	20%	25V
C204	1-126-960-11	ELECT	1MF	20%	50V
C205	1-126-960-11	ELECT	1MF	20%	50V
C231	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C232	1-128-551-11	ELECT	22MF	20%	25V
C233	1-128-551-11	ELECT	22MF	20%	25V
C234	1-126-960-11	ELECT	1MF	20%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C235	1-126-960-11	ELECT	1MF	20%	50V
C236	1-128-551-11	ELECT	22MF	20%	25V
C237	1-126-960-11	ELECT	1MF	20%	50V
C238	1-126-960-11	ELECT	1MF	20%	50V
C241	1-126-941-11	ELECT	470MF	20%	25V
C242	1-126-959-11	ELECT	0.47MF	20%	50V
C243	1-126-959-11	ELECT	0.47MF	20%	50V
C244	1-126-959-11	ELECT	0.47MF	20%	50V
C245	1-126-959-11	ELECT	0.47MF	20%	50V
C247	1-126-941-11	ELECT	470MF	20%	25V
C248	1-126-959-11	ELECT	0.47MF	20%	50V
C249	1-126-959-11	ELECT	0.47MF	20%	50V
C272	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C273	1-128-551-11	ELECT	22MF	20%	25V
C277	1-128-551-11	ELECT	22MF	20%	25V
C278	1-128-551-11	ELECT	22MF	20%	25V
C279	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C281	1-128-551-11	ELECT	22MF	20%	25V
C283	1-126-941-11	ELECT	470MF	20%	25V
C284	1-126-941-11	ELECT	470MF	20%	25V
C1051	1-126-964-11	ELECT	10MF	20%	50V
C1053	1-104-665-11	ELECT	100MF	20%	25V
C2201	1-126-965-11	ELECT	22MF	20%	50V
C2202	1-126-965-11	ELECT	22MF	20%	50V
C2203	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
	CONNECTOR				
CN261	1-573-300-21	CONNECTOR, BOARD TO BOARD 18P			
CN262	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P			
CN264*	1-691-632-21	CONNECTOR, BOARD TO BOARD 15P			
CN1401*	1-564-508-11	PLUG, CONNECTOR 5P			
CN1402*	1-564-507-11	PLUG, CONNECTOR 4P			
	DIODE				
D201	8-719-032-47	DIODE MTZJ-T-9110			
D202	8-719-032-47	DIODE MTZJ-T-9110			
D203	8-719-032-47	DIODE MTZJ-T-9110			
D204	8-719-032-47	DIODE MTZJ-T-9110			
D205	8-719-032-47	DIODE MTZJ-T-9110			
D231	8-719-032-47	DIODE MTZJ-T-9110			
D232	8-719-032-47	DIODE MTZJ-T-9110			
D233	8-719-032-47	DIODE MTZJ-T-9110			
D234	8-719-032-47	DIODE MTZJ-T-9110			
D235	8-719-032-47	DIODE MTZJ-T-9110			
D236	8-719-032-47	DIODE MTZJ-T-9110			
D237	8-719-032-47	DIODE MTZJ-T-9110			
D238	8-719-032-47	DIODE MTZJ-T-9110			
D239	8-719-032-47	DIODE MTZJ-T-9110			
D245	8-719-157-94	DIODE RD3.3SB			

REF.NO.	PART NO.	DESCRIPTION	REMARK
D246	8-719-157-94	DIODE RD3.3SB	
D247	8-719-157-94	DIODE RD3.3SB	
D248	8-719-157-94	DIODE RD3.3SB	
D249	8-719-157-94	DIODE RD3.3SB	
D250	8-719-157-94	DIODE RD3.3SB	
D261	8-719-032-47	DIODE MTZJ-T-9110	
D902	8-719-032-47	DIODE MTZJ-T-9110	
D910	8-719-032-47	DIODE MTZJ-T-9110	
D911	8-719-032-47	DIODE MTZJ-T-9110	
D912	8-719-032-47	DIODE MTZJ-T-9110	
D1051	8-719-404-49	DIODE MA111	
D1052	8-719-404-49	DIODE MA111	
D2201	8-719-032-47	DIODE MTZJ-T-9110	
D2202	8-719-032-47	DIODE MTZJ-T-9110	
D2203	8-719-032-47	DIODE MTZJ-T-9110	
	IC		
IC261	8-752-066-69	IC CXA1845Q	
IC1051	8-752-058-68	IC CXA1315M	
IC1402	8-759-100-96	IC UPC4558G2	
	JACK		
J231	1-750-515-11	TERMINAL BLOCK, S 3P	
J232	1-750-517-11	JACK BLOCK, PIN 3P	
J233	1-750-516-11	JACK BLOCK, PIN 2P	
J234	1-750-517-11	JACK BLOCK, PIN 3P	
J235	1-750-517-11	JACK BLOCK, PIN 3P	
J236	1-774-358-11	JACK BLOCK, PIN	
J902	1-764-143-11	JACK 3P	
J903	1-764-143-11	JACK 3P	
J904	1-764-143-11	JACK 3P	
J905	1-764-143-11	JACK 3P	
	CHIP CONDUCTOR		
JR1470	1-216-295-91	SHORT	0
JR1471	1-216-295-91	SHORT	0
	COIL		
L261	1-410-482-31	INDUCTOR	100UH
	TRANSISTOR		
Q202	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q203	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q208	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q209	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q210	8-729-422-27	TRANSISTOR 2SD601A-Q	

UX

REF.NO.	PART NO.	DESCRIPTION			REMARK
Q211	8-729-216-22	TRANSISTOR 2SA1162-G			
Q212	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q231	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q233	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q234	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q235	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q236	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q237	8-729-216-22	TRANSISTOR 2SA1162-G			
Q238	8-729-216-22	TRANSISTOR 2SA1162-G			
Q239	8-729-216-22	TRANSISTOR 2SA1162-G			
Q240	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q241	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q242	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q243	8-729-216-22	TRANSISTOR 2SA1162-G			
Q244	8-729-216-22	TRANSISTOR 2SA1162-G			
Q245	8-729-216-22	TRANSISTOR 2SA1162-G			
Q246	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q262	8-729-216-22	TRANSISTOR 2SA1162-G			
Q263	8-729-216-22	TRANSISTOR 2SA1162-G			
Q264	8-729-216-22	TRANSISTOR 2SA1162-G			
Q265	8-729-422-27	TRANSISTOR 2SD601A-Q			
Q266	8-729-216-22	TRANSISTOR 2SA1162-G			
Q267	8-729-216-22	TRANSISTOR 2SA1162-G			
Q268	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1051	8-729-216-22	TRANSISTOR 2SA1162-G			
	RESISTOR				
R201	1-216-022-00	RES, CHIP	75	5%	1/10W
R202	1-216-022-00	RES, CHIP	75	5%	1/10W
R203	1-216-022-00	RES, CHIP	75	5%	1/10W
R204	1-216-113-00	RES, CHIP	470K	5%	1/10W
R205	1-216-113-00	RES, CHIP	470K	5%	1/10W
R206	1-216-295-91	SHORT	0		
R207	1-216-295-91	SHORT	0		
R208	1-216-295-91	SHORT	0		
R211	1-216-089-91	RES, CHIP	47K	5%	1/10W
R212	1-216-081-00	RES, CHIP	22K	5%	1/10W
R213	1-216-089-91	RES, CHIP	47K	5%	1/10W
R214	1-216-081-00	RES, CHIP	22K	5%	1/10W
R218	1-208-774-11	RES, CHIP	470	0.50%	1/10W
R219	1-216-049-91	RES, CHIP	1K	5%	1/10W
R220	1-208-776-11	RES, CHIP	560	0.50%	1/10W
R221	1-208-774-11	RES, CHIP	470	0.50%	1/10W
R222	1-216-049-91	RES, CHIP	1K	5%	1/10W
R223	1-208-776-11	RES, CHIP	560	0.50%	1/10W
R225	1-216-025-91	RES, CHIP	100	5%	1/10W
R226	1-216-025-91	RES, CHIP	100	5%	1/10W
R228	1-216-049-91	RES, CHIP	1K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R229	1-216-049-91	RES, CHIP	1K	5%	1/10W
R230	1-216-089-91	RES, CHIP	47K	5%	1/10W
R231	1-216-022-00	RES, CHIP	75	5%	1/10W
R232	1-216-022-00	RES, CHIP	75	5%	1/10W
R233	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R234	1-216-022-00	RES, CHIP	75	5%	1/10W
R235	1-216-113-00	RES, CHIP	470K	5%	1/10W
R236	1-216-113-00	RES, CHIP	470K	5%	1/10W
R237	1-216-022-00	RES, CHIP	75	5%	1/10W
R238	1-216-113-00	RES, CHIP	470K	5%	1/10W
R239	1-216-113-00	RES, CHIP	470K	5%	1/10W
R240	1-216-097-91	RES, CHIP	100K	5%	1/10W
R241	1-216-113-00	RES, CHIP	470K	5%	1/10W
R242	1-216-049-91	RES, CHIP	1K	5%	1/10W
R243	1-216-113-00	RES, CHIP	470K	5%	1/10W
R244	1-216-049-91	RES, CHIP	1K	5%	1/10W
R245	1-216-022-00	RES, CHIP	75	5%	1/10W
R246	1-216-113-00	RES, CHIP	470K	5%	1/10W
R247	1-216-113-00	RES, CHIP	470K	5%	1/10W
R248	1-216-113-00	RES, CHIP	470K	5%	1/10W
R249	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R250	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R251	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R252	1-216-049-91	RES, CHIP	1K	5%	1/10W
R254	1-216-049-91	RES, CHIP	1K	5%	1/10W
R256	1-216-295-91	SHORT	0		
R257	1-216-049-91	RES, CHIP	1K	5%	1/10W
R258	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R259	1-216-049-91	RES, CHIP	1K	5%	1/10W
R260	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R261	1-216-025-91	RES, CHIP	100	5%	1/10W
R262	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R263	1-216-025-91	RES, CHIP	100	5%	1/10W
R264	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R265	1-216-025-91	RES, CHIP	100	5%	1/10W
R266	1-216-025-91	RES, CHIP	100	5%	1/10W
R267	1-216-025-91	RES, CHIP	100	5%	1/10W
R268	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R269	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R270	1-216-049-91	RES, CHIP	1K	5%	1/10W
R271	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R272	1-216-025-91	RES, CHIP	100	5%	1/10W
R273	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R274	1-216-049-91	RES, CHIP	1K	5%	1/10W
R275	1-216-025-91	RES, CHIP	100	5%	1/10W
R276	1-216-295-91	SHORT	0		
R278	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R279	1-216-025-91	RES, CHIP	100	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R280	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R281	1-216-025-91	RES, CHIP	100	5%	1/10W
R282	1-216-025-91	RES, CHIP	100	5%	1/10W
R283	1-216-049-91	RES, CHIP	1K	5%	1/10W
R284	1-216-033-00	RES, CHIP	220	5%	1/10W
R285	1-216-033-00	RES, CHIP	220	5%	1/10W
R286	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R287	1-216-025-91	RES, CHIP	100	5%	1/10W
R288	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R289	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R290	1-216-025-91	RES, CHIP	100	5%	1/10W
R291	1-216-067-00	RES, CHIP	5.6K	5%	1/10W
R292	1-216-025-91	RES, CHIP	100	5%	1/10W
R293	1-216-025-91	RES, CHIP	100	5%	1/10W
R294	1-216-077-00	RES, CHIP	15K	5%	1/10W
R295	1-216-025-91	RES, CHIP	100	5%	1/10W
R296	1-216-025-91	RES, CHIP	100	5%	1/10W
R297	1-216-025-91	RES, CHIP	100	5%	1/10W
R298	1-216-025-91	RES, CHIP	100	5%	1/10W
R300	1-216-025-91	RES, CHIP	100	5%	1/10W
R902	1-249-405-11	CARBON	100	5%	1/4W F
R919	1-216-295-91	SHORT	0		
R921	1-249-405-11	CARBON	100	5%	1/4W F
R923	1-249-405-11	CARBON	100	5%	1/4W F
R925	1-249-405-11	CARBON	100	5%	1/4W F
R926	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1051	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1052	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1055	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1056	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1057	1-216-025-91	RES, CHIP	100	5%	1/10W
R1058	1-216-025-91	RES, CHIP	100	5%	1/10W
R1059	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1060	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1062	1-216-025-91	RES, CHIP	100	5%	1/10W
R1063	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1064	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1065	1-216-025-91	RES, CHIP	100	5%	1/10W
R1156	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1157	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1191	1-216-017-91	RES, CHIP	47	5%	1/10W
R1192	1-216-017-91	RES, CHIP	47	5%	1/10W
R1208	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1209	1-216-295-91	SHORT	0		
R1211	1-216-089-91	RES, CHIP	47K	5%	1/10W
R1212	1-216-081-00	RES, CHIP	22K	5%	1/10W
R1213	1-216-049-91	RES, CHIP	1K	5%	1/10W

REF.NO.	PART NO.	DESCRIPTION		REMARK	
R1214	1-208-774-11	RES, CHIP	470	0.50%	1/10W
R1215	1-208-776-11	RES, CHIP	560	0.50%	1/10W
R1216	1-216-025-91	RES, CHIP	100	5%	1/10W
R1217	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1242	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1243	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1244	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1245	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1246	1-216-022-00	RES, CHIP	75	5%	1/10W
R1247	1-216-113-00	RES, CHIP	470K	5%	1/10W
R1248	1-216-113-00	RES, CHIP	470K	5%	1/10W
R1249	1-216-113-00	RES, CHIP	470K	5%	1/10W
R1250	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1251	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1252	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1254	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1255	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1256	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1257	1-216-065-91	RES, CHIP	4.7K	5%	1/10W
R1258	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1259	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1260	1-216-295-91	SHORT	0		
R1261	1-208-774-11	RES, CHIP	470	0.50%	1/10W
R1262	1-208-776-11	RES, CHIP	560	0.50%	1/10W
R1263	1-216-295-91	SHORT	0		
R1264	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1265	1-216-025-91	RES, CHIP	100	5%	1/10W
R1266	1-216-041-00	RES, CHIP	470	5%	1/10W
R1267	1-216-025-91	RES, CHIP	100	5%	1/10W
R1268	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1269	1-216-041-00	RES, CHIP	470	5%	1/10W
R1270	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1271	1-216-025-91	RES, CHIP	100	5%	1/10W
R1272	1-208-774-11	RES, CHIP	470	0.50%	1/10W
R1273	1-208-777-11	RES, CHIP	620	0.50%	1/10W
R1274	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1275	1-216-097-91	RES, CHIP	100K	5%	1/10W
R1276	1-216-041-00	RES, CHIP	470	5%	1/10W
R1277	1-216-025-91	RES, CHIP	100	5%	1/10W
R1278	1-216-025-91	RES, CHIP	100	5%	1/10W
R1279	1-216-025-91	RES, CHIP	100	5%	1/10W
R1280	1-216-025-91	RES, CHIP	100	5%	1/10W
R1281	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1282	1-216-025-91	RES, CHIP	100	5%	1/10W
R1283	1-216-295-91	SHORT	0		
R1284	1-216-295-91	SHORT	0		
R1286	1-216-295-91	SHORT	0		

UX WA

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1287	1-216-295-91	SHORT	0		
R1288	1-216-295-91	SHORT	0		
R1289	1-216-295-91	SHORT	0		
R1290	1-216-295-91	SHORT	0		
R1291	1-216-295-91	SHORT	0		
R1292	1-216-295-91	SHORT	0		
R1293	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1294	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1295	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1296	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1297	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1298	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1299	1-216-049-91	RES, CHIP	1K	5%	1/10W
R1300	1-216-049-91	RES, CHIP	1K	5%	1/10W
R140T	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1411	1-216-073-00	RES, CHIP	10K	5%	1/10W
R1412	1-216-093-00	RES, CHIP	68K	5%	1/10W
R1414	1-216-077-00	RES, CHIP	15K	5%	1/10W
R1416	1-216-025-91	RES, CHIP	100	5%	1/10W
R1417	1-216-025-91	RES, CHIP	100	5%	1/10W
R1418	1-216-093-00	RES, CHIP	68K	5%	1/10W
R1419	1-216-077-00	RES, CHIP	15K	5%	1/10W
R2201	1-216-022-00	RES, CHIP	75	5%	1/10W
R2202	1-216-022-00	RES, CHIP	75	5%	1/10W
R2203	1-216-022-00	RES, CHIP	75	5%	1/10W

WA

*	**A-1375-179-A**	**WA BOARD, COMPLETE (KV-32XBR200)**
*	**A-1375-181-A**	**WA BOARD, COMPLETE (KV-36XBR200)**

CAPACITOR

C944	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C946	1-104-665-11	ELECT	100MF	20%	25V
C949	1-161-830-00	CERAMIC	0.0047MF		500V
C950	1-126-941-11	ELECT	470MF	20%	25V
C951	1-107-637-11	ELECT	22MF	20%	160V
C952	1-104-999-11	MYLAR	0.1MF	10%	200V
C953	1-106-383-00	MYLAR	0.047MF	10%	200V
C954	1-130-471-00	FILM	0.001MF	5%	50V
C955	1-107-667-11	ELECT	2.2MF	20%	160V
C956	1-130-471-00	FILM	0.001MF	5%	50V
C957	1-106-383-00	MYLAR	0.047MF	10%	200V
C958	1-126-941-11	ELECT	470MF	20%	25V
C963	1-126-960-11	ELECT	1MF	20%	50V
C964	1-136-153-00	FILM	0.01MF	5%	50V
C965	1-136-165-00	FILM	0.1MF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C966	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C967	1-136-165-00	FILM	0.1MF	5%	50V
C968	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C970	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C971	1-104-664-11	ELECT	47MF	20%	25V
C972	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C973	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C974	1-137-370-11	FILM	0.01MF	5%	50V
C976	1-130-967-00	FILM	0.0027MF	5%	50V
C977	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
C981	1-126-941-11	ELECT	470MF	20%	25V
C983	1-137-366-11	FILM	0.0022MF	5%	50V
C984	1-107-713-11	ELECT	4.7MF	20%	35V
C1941	1-126-941-11	ELECT	470MF	20%	25V
C1948	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1961	1-129-725-00	FILM	0.082MF	5%	400V
C1962	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1965	1-136-601-11	FILM	0.01MF	10%	630V
C1966	1-137-378-11	FILM	0.22MF	5%	50V
C1968	1-137-378-11	FILM	0.22MF	5%	50V
C1969	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1972	1-104-664-11	ELECT	47MF	20%	16V
C1974	1-104-664-11	ELECT	47MF	20%	16V
C1976	1-163-035-00	CERAMIC CHIP	0.047MF	50V	

CONNECTOR

CN941 *	1-564-511-11	PLUG, CONNECTOR 8P
CN942 *	1-564-509-11	PLUG, CONNECTOR 6P
CN961 *	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P
CN981 *	1-564-506-11	PLUG, CONNECTOR 3P
CN982 *	1-564-507-11	PLUG, CONNECTOR 4P

DIODE

D941	8-719-991-33	DIODE 1SS133T-77
D946	8-719-110-88	DIODE RD39ESB2
D947	8-719-110-88	DIODE RD39ESB2
D962	8-719-991-33	DIODE 1SS133T-77
D963	8-719-404-49	DIODE MA111
D964	8-719-210-21	DIODE 11EQS04
D966	8-719-302-43	DIODE EL1Z
D968	8-719-109-89	DIODE RD5.6ESB2
D969	8-719-109-89	DIODE RD5.6ESB2
D1961	8-719-991-33	DIODE 1SS133T-77
D1962	8-719-991-33	DIODE 1SS133T-77

IC

IC961	8-752-074-64	IC CXA2026AS
IC962	8-759-729-03	IC NJM2903D

WA

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC963	8-759-729-03	IC NJM2903D	
IC964	8-759-700-42	IC NJM2904D	
IC965	8-759-701-59	IC NJM78M09FA	
IC981	8-759-603-37	IC M5216P	
	COIL		
L961	1-459-111-00	INDUCTOR 0UH	
L964	1-406-989-21	INDUCTOR 10MMH	
	TRANSISTOR		
Q943	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q944	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q945	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q946	8-729-017-05	TRANSISTOR 2SA1837	
Q947	8-729-017-06	TRANSISTOR 2SC4793	
Q961	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q962	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q963	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q965	8-729-931-45	TRANSISTOR IRF614	
Q966	8-729-216-22	TRANSISTOR 2SA1162-G	
Q967	8-729-140-97	TRANSISTOR 2SB734-34	
Q968	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q969	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q981	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1961	8-729-140-97	TRANSISTOR 2SB734-34	
	RESISTOR		
R943	1-216-025-91	RES, CHIP 100 5% 1/10W	
R948	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R949	1-216-057-00	RES, CHIP 2.2K 5% 1/10W	
R950	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R951	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R952	1-216-041-00	RES, CHIP 470 5% 1/10W	
R953	1-216-021-00	RES, CHIP 68 5% 1/10W	
R954	1-216-033-00	RES, CHIP 220 5% 1/10W	
R955	1-216-047-91	RES, CHIP 820 5% 1/10W	
R956	1-216-025-91	RES, CHIP 100 5% 1/10W	
R957	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R958	1-216-025-91	RES, CHIP 100 5% 1/10W	
R959	1-216-021-00	RES, CHIP 68 5% 1/10W	
R961	1-216-025-91	RES, CHIP 100 5% 1/10W	
R962	1-216-025-91	RES, CHIP 100 5% 1/10W	
R963	1-216-091-00	RES, CHIP 56K 5% 1/10W	
R964	1-216-109-00	RES, CHIP 330K 5% 1/10W	
R965	1-216-089-91	RES, CHIP 47K 5% 1/10W	
R966	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R967	1-216-089-91	RES, CHIP 47K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R968	1-216-083-00	RES, CHIP 27K 5% 1/10W	
R969	1-216-025-91	RES, CHIP 100 5% 1/10W	
R970	1-208-832-11	RES, CHIP 120K 0.50% 1/10W	
R971	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R972	1-216-065-91	RES, CHIP 4.7K 5% 1/10W	
R973	1-216-057-00	RES, CHIP 2.2K 5% 1/10W	
R974	1-208-808-11	RES, CHIP 12K 0.50% 1/10W	
R975	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R976	1-216-057-00	RES, CHIP 2.2K 5% 1/10W	
R977	1-249-401-11	CARBON 47 5% 1/4W	F
R978	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R979	1-216-017-91	RES, CHIP 47 5% 1/10W	
R980	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R981	1-216-085-00	RES, CHIP 33K 5% 1/10W	
R982	1-216-081-00	RES, CHIP 22K 5% 1/10W	
R983	1-216-077-00	RES, CHIP 15K 5% 1/10W	
R984	1-216-069-00	RES, CHIP 6.8K 5% 1/10W	
R985	1-215-421-00	METAL 1K 1% 1/4W	
R987	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R988	1-215-429-00	METAL 2.2K 1% 1/4W	
R989	1-208-806-11	RES, CHIP 10K 0.50% 1/10W	
R990	1-216-025-91	RES, CHIP 100 5% 1/10W	
R991	1-208-800-11	RES, CHIP 5.6K 0.50% 1/10W	
R992	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R993	1-216-025-91	RES, CHIP 100 5% 1/10W	
R1941	1-260-312-11	CARBON 47 5% 1/2W	
R1942	1-249-387-11	CARBON 3.3 5% 1/4W	F
R1943	1-249-414-11	CARBON 560 5% 1/4W	F
R1944	1-249-432-11	CARBON 18K 5% 1/4W	
R1945	1-215-914-11	METAL OXIDE 330 5% 3W	F
R1946	1-249-417-11	CARBON 1K 5% 1/4W	F
R1947	1-249-432-11	CARBON 18K 5% 1/4W	
R1948	1-249-414-11	CARBON 560 5% 1/4W	
R1949	1-249-387-11	CARBON 3.3 5% 1/4W	F
R1950	1-249-401-11	CARBON 47 5% 1/4W	F
R1960	1-216-037-00	RES, CHIP 330 5% 1/10W	
R1962	1-216-065-91	RES, CHIP 4.7K 5% 1/10W	
R1963	1-216-033-00	RES, CHIP 220 5% 1/10W	
R1964	1-216-057-00	RES, CHIP 2.2K 5% 1/10W	
R1967	1-215-489-00	METAL 680K 1% 1/4W	
R1969	1-216-057-00	RES, CHIP 2.2K 5% 1/10W	
R1970	1-216-049-91	RES, CHIP 1K 5% 1/10W	
R1971	1-216-121-91	RES, CHIP 1M 5% 1/10W	
R1972	1-216-073-00	RES, CHIP 10K 5% 1/10W	
R1973	1-216-035-00	RES, CHIP 270 5% 1/10W	
R1974	1-216-077-00	RES, CHIP 15K 5% 1/10W	
R1978	1-216-025-91	RES, CHIP 100 5% 1/10W	

WA

Note:

The components identified with shading and a critical symbol ⚠ are critical for safety. Replace only with part number specified.

Note:

Les composants identifies per un trame et une marque ⚠sont critiques pout la securite. Ne les remplacer que par une piece portant le numero specifie.

REF.NO.	PART NO.	DESCRIPTION		REMARK
R1980	1-216-041-00	RES, CHIP	470 5% 1/10W	
R2962	1-215-885-00	METAL OXIDE	68 5% 2W	F
R2963	1-215-885-00	METAL OXIDE	68 5% 2W	F
R2965	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	
R2966	1-208-842-11	RES, CHIP	330K 0.50% 1/10W	
R2967	1-208-839-11	RES, CHIP	240K 0.50% 1/10W (KV-32XBR200)	
R2967	1-208-841-11	RES, CHIP	300K 0.50% 1/10W (KV-36XBR200)	
R2968	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	
R2969	1-216-065-91	RES, CHIP	4.7K 5% 1/10W	
R2971	1-216-069-00	RES, CHIP	6.8K 5% 1/10W	
R2972	1-208-784-11	RES, CHIP	1.2K 0.50% 1/10W	
R2973	1-208-758-11	RES, CHIP	100 0.50% 1/10W	
R2975	1-216-061-00	RES, CHIP	3.3K 5% 1/10W	
R2976	1-208-758-11	RES, CHIP	100 0.50% 1/10W	
R2977	1-216-073-00	RES, CHIP	10K 5% 1/10W	
R2978	1-208-782-11	RES, CHIP	1K 0.50% 1/10W	
R2979	1-216-097-91	RES, CHIP	100K 5% 1/10W	
R2980	1-216-097-91	RES, CHIP	100K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		ACCESSSORIES AND PACKING MATERIALS	
	3-862-739-21	MANUAL, INSTRUCTION	
*	4-065-856-01	CUSHION (UPPER) (ASSY) (KV-32XBR200)	
*	4-065-857-01	CUSHION (LOWER) (ASSY) (KV-32XBR200)	
*	4-053-658-01	BAG, PROTECTION (KV-32XBR200)	
*	4-065-855-01	INDIVIDUAL CARTON (KV-32XBR200)	
*	4-065-046-01	CUSHION (UPPER) (ASSY) (KV-36XBR200)	
*	4-065-047-01	CUSHION (LOWER) (ASSY) (KV-36XBR200)	
*	4-066-646-01	BAG, PROTECTION (KV-36XBR200)	
*	4-066-647-01	INDIVIDUAL CARTON (KV-36XBR200)	
*	4-066-648-01	CUSHION (REAR) (KV-36XBR200)	
		REMOTE COMMANDER	
	1-475-306-11	REMOTE COMMANDER (RM-Y144)	
	4-978-977-01	BATTERY COVER	
		MISCELLANEOUS	
⚠	1-416-827-11	COIL, DEMAGNETIZATION (KV-32XBR200)	
⚠	1-416-828-11	COIL, DEMAGNETIZATION (KV-36XBR200)	
	1-452-032-00	MAGNET, DISK 10MMØ	
	1-452-094-00	MAGNET, ROTATABLE DISK: 15MMØ	
	1-452-885-11	MAGNET, LANDING	
	1-557-056-31	CABLE,P-P	
	1-556-945-21	CABLE, P-P	
⚠	1-751-059-11	CORD, POWER	
	8-598-414-00	ANTENNA SWITCH	
⚠	8-735-047-61	ITC34RSN-A1 (KV-32XBR200)	
⚠	8-735-048-61	ITC38RSN-A1 (KV-36XBR200)	
⚠	1-453-282-11	TRANSFORMER, FLYBACK (KV-32XBR200)	
⚠	1-453-286-11	TRANSFORMER, FLYBACK (KV-36XBR200)	

Sony Corporation
Sony Technology Center
Product Quality Division
Service Promotion Department

9-965-864-01

English
98IT74378-1
Printed in U.S.A.
© 1998.9